

Better Equipment for Southern Mills

SOUTHERN TEXTILE BULLETIN

VOLUME 26

CHARLOTTE, N. C., THURSDAY, JULY 10, 1924

NUMBER 19

Are Those Old Spindles A Handicap to Your Mill?

Do You Know that our Wire-Packed Bolster has prolonged the life of the Spindle and reduced the cost of Spindle maintenance?

Do You Know that recent improvements to the Centrifugal Clutch Spindle have corrected the one weakness it developed by use?

The Story of These Improvements and what they mean to you in your business is worth investigating. We have the men who can give you the facts. How you use the information is up to you.

Let's Talk It Over.

DRAPER CORPORATION

Southern Office Atlanta Georgia

Hopedale Massachusetts

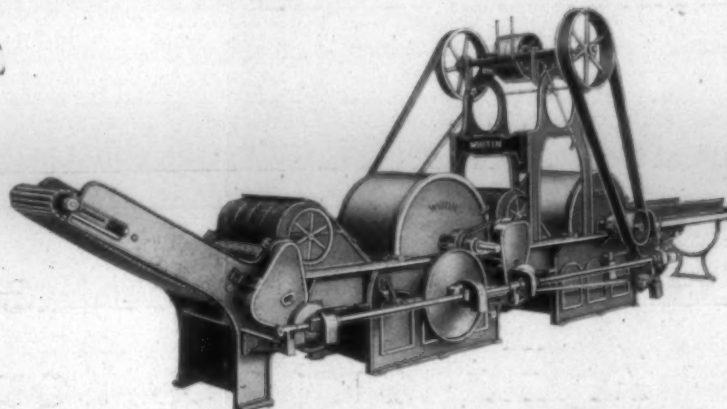
WHITIN MACHINE WORKS

ESTABLISHED 1831

TEXTILE MACHINERY

INCREASE YOUR PROFITS!!

HARD WASTE
MADE
SOFT
AND
USABLE
BY



THE WHITIN HARD WASTE MACHINE—

Circular sent if requested.

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SOUTHERN OFFICE CHARLOTTE N.C.

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—and these Stars
have a meaning

They signify the different grades in which Thin Boiling Eagle Starch is offered to the textile industry.

Being the pioneers in the manufacture of Thin Boiling Starches, we are gratified at the widespread recognition they have received.

Be sure to select the grade best suited to your work. Our knowledge and experience is at your service.

CORN PRODUCTS REFINING CO.

New York

Southern Office: Greenville, S. C.

Starch



Specify
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Requisitions

These Products are the Reliable
Standards of Uniformity De-
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Sizes

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Saco-Lowell Model 17 Ring Spinning Frame

MODERN SPINNING FRAMES

With greatly improved spindles and spindle drives, together with a higher standard of workmanship throughout the machine, permit the use of higher speeds and larger packages, which reduce the cost of production and improve the quality of the yarn and goods. They may be run at a profit when obsolete machinery must be shut down.

SACO-LOWELL SHOPS

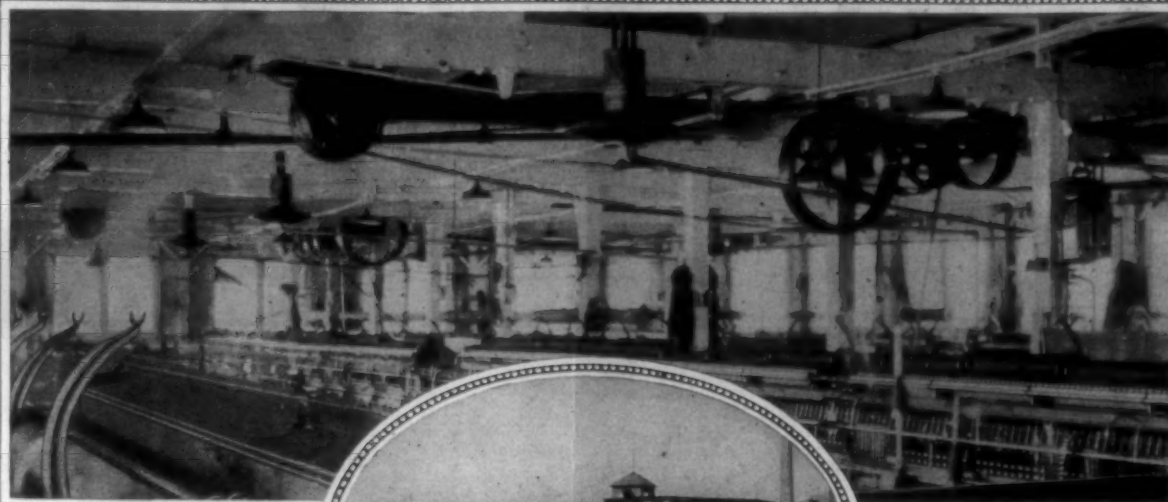
1824

1924

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Wool Hosiery of All Kinds
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175 Latch Needle Knitting

ParkSpray Humidifiers in Woolen Manufacture Carding Mule Spinning Knitting



Humidifiers in Knitting Room

In this plant wool is carded, spun and knit. The Product is wool hosiery. ParkSpray humidifiers (with automatic regulators) have been installed in all these departments.

"We are much pleased to advise you that the humidifier system which you installed is giving perfect satisfaction. It is a great benefit to us, and worth much more than the price of installation."

IT HAS BEEN DONE. It is being done. ParkSpray Humidifiers help to solve problems in the carding and spinning of wool—not to mention the knitting of it.



Parks-Cramer Company

Engineers & Contractors
Industrial Piping and Air Conditioning

Fitchburg

Boston

Charlotte



HOUGHTON

Even Nature Has Her Limitations

"Yet neither spinnies, nor cards, ne cares nor fretts,
But to her Mother Nature all her care she letts."

Spenser—*Faerie Queene*

Chas. E. Carpenter is just telling you.

IF we are to believe the famous artists, to whom we pay such fabulous sums to portray things as they were, the aboriginal man's dinner coat consisted of the natural skin of an animal and Eve's wedding gown was a leaf from a grapevine.

Instead of occupying Fifth Avenue mansions in the winter and Newport cottages in the summer, the old-timers dwelled in the caves which Nature provided.

The cave man knew of no Childs, Automats, Bellevues, Copley Plazas, Ritzs, or Biltmores, but just took a natural hunk, of natural food, in his natural mitt, and went to it.

But, as the Almighty developed the human intellect man's wants increased and Nature did not increase a single natural law, or a single source of supply, with which to meet these increased wants.

But the Almighty did utilize the improved intellect of man to enable man to take the original sources of supply and the original laws of Nature and so apply those laws to the original sources of supply and Nature's productions, as to enable man to satisfy his increased wants and desires.

Which is merely another way of saying that, as civilized man's wants and desires increased, Nature gave man the sciences, with which man treated the natural products, so as to satisfy his increased wants and desires.

In this great drama of life E. F. Houghton & Co., through the Houghton Research Staff, have been cast to develop the wants of the industries in Oils, Greases and Leathers, by applying the modern sciences to the natural products and thus adapting those natural products so that they are best suited to the modern wants and desires of the textile industries.

Thus, Houghton's Olive Oil Emulsion is the natural olive oil best adapted to oiling wool; Houghton's Warp Conditioner is tallow so manipulated as to make it best suited for conditioning warps; VIM Leather Belting is the best natural hide, tanned by the best process, which will make the best belt for textile machinery, etc.

Getting down to brass tacks, all of this means that the Houghton Products are the result of scientific research and the application of modern sciences to the natural products, in order to make them best for the modern requirements of the textile industries.

E. F. HOUGHTON & COMPANY

Works: Philadelphia—Chicago—Detroit

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AND IN EVERY OTHER TEXTILE MANUFACTURING CENTER OF THE WORLD

Oils and Leathers for the Textile Industry

Engineering's Ceaseless Service is Building Southern Textile Greatness

Perhaps you are one of those progressive textile manufacturers who have wrestled with the question of "filling wind on warp" and then tabled it with a prayer that the day would come when some keen minded textile engineer would work out the problem for you.

The day has come! Engineering skill has, during the past three productive years, invented and made practical several tension devices to enable textile mills to enter a new era of efficiency.

It is now possible to spool from filling-wound bobbins as rapidly as from warp wound bobbins; and this also means an increase in front roll speed of at least 10 revolutions more per minute, with greatly reduced strain on the yarn. Hence a tangible increase in both production and quality of yarn, with a marked decrease in waste on the spoolers.

Things are a bit quiet in textiles now and this is the best of all times to write your manufacturer and get full information on how inexpensively you can make the change and how greatly you will gain by it.

Manufacturers and textile engineers are keenly interested in this campaign because it means entrenching the South still deeper in textile leadership. In industry there is no standing still—you either progress or slip backwards.

Mills that are equipping for "Filling Wind on Warp" are equipping to extract **extra profits** from every bale of cotton. When the market demand swings back will you be in line with the mills which are taking advantage of the present lull and present manufacturers' concessions, to bring their equipment up to date? Write your manufacturer about this topic NOW?

*Let Us Keep The South Leading In Big Scale
Production Of Quality Textiles*

Better Equipment Campaign

This advertisement contributed to by the following firms:

Saco-Lowell Shops
Whitin Machine Works
H. & B. American Machine Co.
Fales & Jenks Machine Co.
Woonsocket Machine & Press Co.
Whitinsville Spinning Ring Co.
Crompton & Knowles Loom Works
Lestershire Spool & Mfg. Co.
The Stafford Co.
The Dana S. Courtney Co.

Easton & Burnham Machine Co.
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U. S. Bobbin & Shuttle Co.
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The Root Co.
R. I. Warp Stop Equipment Co.
Hyatt Roller Bearing Co.

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Franklin Process Co.
T. C. Entwistle Co.

SOUTHERN TEXTILE BULLETIN

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VOLUME 26

CHARLOTTE, N. C., THURSDAY, JULY 10, 1924

NUMBER 19

Filling Wind on Warp

By Carl R. Harris, Inman, S. C.

WE have long realized that there were many advantages to be derived from the use of filling wind on warp spinning, but not until we could secure a satisfactory tension device for spooling this yarn could this method of spinning be adopted.

There has in recent years been marketed several devices, which though far from perfect, give very satisfactory results and many mills are turning to their use in order to reap the benefits in the spinning room.

Every spinner can readily see the advantage to be derived from having his room on one kind of work, because with the same wind on warp and filling he is enabled to change his operatives from one to the other without encountering difficulty. This perfect interchangeability may on the face of it seem small, but it constitutes a very decided advantage.

It has always been a difficult proposition to adjust the weight of our traveler to the two extreme differences in tension encountered with the warp wind and I might say that we never have or ever will be able to meet this difference as we would like while using warp wind. Whereas, with the filling wind this difficulty is almost entirely overcome and our tension can practically be kept the same from start to finish of the bobbin.

With the warp wind there is a difference of twist in the yarn on a full bobbin and an empty bobbin, and just when our twist is least our tension is greatest. This condition is almost entirely overcome by the use of filling wind and is a very decided advantage in favor of quality and quantity.

The two above conditions bear an important relation to breaking strength and it naturally follows that when we remove this trouble we are to expect better breaking quality and consequently better running work.

Heretofore, we have had to run a fairly large barrel bobbin to help take care of this difference in tension and twist between the empty and full bobbin. With the adoption of filling wind we are enabled to not only decrease the diameter of the barrel of our bobbin, but we can also run a longer bobbin. This gives us more yarn to the doff and consequently reduces our stoppage.

The last mentioned item alone would naturally increase our production, even if we did not get an increase in roll speed. However, in the elimination of the above mentioned disadvantages we have increased our quality and it is natural

to expect that we can get an increase in speed without affecting the running of our work, and I, personally, know that a good many mills that have changed to filling wind are getting a faster front roll speed. Some time ago I saw a report from a mill that had changed from warp to filling wind on 40s to 60s yarn. The report stated that the filling wind allowed more yards to be put on a bobbin with the filling wind. This mill had been using a warp bobbin 7½ inches long and ¾ inch in diameter. By dropping the spindle rail so as to get about an inch more lift, they tried out a filling bobbin 8¾ inches by ¾. Later they reduced the bobbin to ¾ inch diameter, after some experimenting and got excellent results, according to the report. The new bobbin has a filling cone on the bottom, which is 11-16 inch at the base and tapers down to ¾ inch, the size of the barrel of the bobbin. This cone, the report stated, reduced the strain incident to starting up when only a small amount of yarn was on the bobbin.

The mill in question reported that on warp wind, they put 3,500 yards of 40s yarns on a bobbin. On the filling wind, they were able to increase this to 4,500. This increase in the number of yards per bobbin is one of the greatest advantages of filling wind, as it reduces doffing work, the mill making the change reporting that it now uses a fourth less doffers.

Another decided advantage of the filling wind system, as reported by this mill, was that it allowed them to increase the speed of the front roll by five turns per minute on 40s yarn, which of course materially increased production. They have also been able to use a traveler that is one number heavier.

In the spooling room, the mill reporting above stated that they were able to more than double the speed of the spindles and get off much more work. Spooling costs dropped because of the higher speed.

While the above tests did not come under my personal observation, the results are in keeping with what every mill may expect to gain by changing to the filling wind method.

Southern mills have made rapid strides in recent years. The extent to which the "Better Equipment" idea is carried out by our mills will furnish an accurate index of their future progress.

ADVANTAGES OF FILLING WIND ON WARP

1. The short traverse used with the filling wind on warp reduces the strain on the yarn.
2. The reduction in the strain permits the twist to settle more uniformly.
3. Filling wind permits warp spinning to run with less twist and thereby produces goods of superior feel and appearance.
4. Filling wind on warp reduces the breakage of ends and permits higher front roll speed.
5. Filling wind on warp frequently increases production 10 per cent and thereby reduces the cost of production.
6. Filling wind on warp means better and more evenly spun yarns with higher production and lower cost.
7. The cost of changing to filling wind on warp is very small, as it only means the installation of special tension devices upon the spoolers.
8. Filling wind on warp would have been adopted years ago if suitable tension device had invented. Now they are for sale at low prices and are efficient.

Recent Accomplishments in Research

By EDWARD H. DAVIS (1914)

Paper Presented at the Twenty-third Annual Meeting of the Alumni Association of the Philadelphia Textile School.

IN the "Standard" dictionary we find that research means, "To make researches concerning; investigate; continued and diligent investigation; in science, a systematic study of certain phenomena by the experimental method." We note further that to "investigate" is "to inquire into systematically," and that phenomenon is defined as "something visible or directly observable, as an appearance, action, occurrence, etc."

Boiled down, then, to its simplest form, research may be considered as being continued, diligent and systematic inquiry into things directly observable as appearances, actions, occurrences. Keeping in mind the true definition of research will perhaps aid us in better comprehending its rather broad scope and wide application to present day industry.

Research is today carried on in some form or another, in practically all industries of any importance, and research departments (for they are now recognized departments of the business) have grown and expanded to such proportions, by reason of their accomplishments, that there is no longer any doubt as to their proper place and necessity in the industrial and business organization. Such great companies as General Electric, du Pont, General Motors and Ford are spending tremendous amounts of money annually in their research departments and doubtless will continue to do so, because they have learned that such expenditure is not only justified by the results obtained, but actually necessary to proper progress and development.

It should not be inferred that research is a new thing, for such is not the case. While its recognition as a specific department of many industrial enterprises is in many cases comparatively recent, research has been carried on since the earliest times. In any group of men, in any line of work, there are always present some who persist in thinking about the work in which they are engaged beyond the mere actual requirements of the job itself. This is fortunate and such men are known in any mill. For example, you recognize the chap who is forever probing and questioning, and considering and experimenting as to how this would work, or why it could not be done this way, and how do we know these machines are functioning properly and alike. This type of man is always engaged in research, though his efforts in this sphere are not directed or officially recognized.

The fact that research, or let us say the urge of research, has been a part of our textile development almost from its earlier stages is clearly revealed in a perusal of the National Association of Cotton Manufacturers' Transactions, wherein we find that practically all of the present-day major questions involved in manufacturing were discussed at length in open meeting; and tests

were run in the early days too, and the mill men were very generally alive to the results to be derived from investigation. And so, research in its true sense has always occupied the minds of men to some degree, depending largely on the man, although as has been indicated it has only comparatively recently been really developed as a distinct function of many industries as well as a department of many more corporations representing these industries.

In scope and application research covers a wide field. When an overseer or second hand takes it into his head to investigate his machines as regards their mechanical condition, their speeds and settings, for the purpose of actually knowing whether they are in good condition, whether they all are set properly and alike and are all running at standard speed, he is just as truly engaged in research as the chemist who is working to produce a new color. And what is more, he is doing a valuable piece of work, for it is a fact that such things as speeds and settings, even in the best of mills, vary greatly, one machine to another, resulting in lack of uniformity of product, loss of quality, and last but not least, loss of production.

In the same manner, it has been observed that research may be well and profitably directed to the running organization. While there may not necessarily be a "best" organization of drafts and weights for a particular yarn, yet there is very certainly a definite range of good practice, and it has been found in many cases that properly considered changes may result in greater production and better running work of attending better quality. There are many cases in which a process may be eliminated in the production of an entirely satisfactory yarn for the purpose intended. There are also many cases where, with a proper change in organization, single roving will suffice where double roving has been employed. Such a change has recently been put into operation in a certain mill and something less than \$100,000 annually is the calculated saving.

Research has been found to be just as appropriate to the power and mechanical functions of the mill. Such things as belts out of line, resulting in loss of power; overloaded as well as oversized motors; motors running below proper speed for one reason or another; wastes in power distribution through poorly arranged shafting, etc., are invariably encountered in surveys. Such studies have resulted in corrections which have always effected appreciable savings in the mill power bill.

The slashing department is a fertile field for investigation. Sizing

materials cost money over a period of a year, even in a small mill, not to mention the cost of steam and the cost of poor-running weaving, which in many cases can be to some extent eliminated by effectual and well-controlled sizing. Every single factor entering into slashing is of importance, from the raw materials to the moisture content of the slashed yarn. There are lots of leakage points in the process, directly or indirectly—the raw materials, the cooking and the temperature and uniformity of temperatures during sizing, the uniformity of sizing content in the yarn, section to section, etc. There is one mill which will save during the coming year upwards of \$30,000 in its slashing bill as a result of investigation. And so it is clear that this type of research may be and is being applied to all departments of the mill and is finding plenty to do. Speeds are always easily thought of as important because of their direct influence on production and, therefore, costs. And it is usually found that some speeding up can be applied in most all mills which have been studied. There is one mill in which a loom speed of about 30 picks above the mill standard was tried on a section of about 70 looms, with results which were very comparable in all respects with those being obtained from the regular looms. This was reported after the test had been running for two months or so. The case is rather extreme and a longer test period may not show such favorable results. However, the point is that we are too prone to accept certain ways of doing things and certain speeds, without an effort to determine if better ways and higher speeds are not possible.

The laboratory, of which there are many now connected with various mills, is rendering a very real and helpful service. It functions or should function in close co-operation with the mill and its problems, and in such capacity it is contributing solutions to many and varied questions. Application of laboratory facilities to investigation of many mill problems is being made and with most beneficial results. The laboratory "slant," as we sometimes call it, is a very potent factor in practically all studies.

The properly equipped laboratory is able to investigate the bale and processed cotton for the purpose of determining such vital things as fibre strength and length, evenness and degree of fineness and natural twist, all of which characteristics admittedly have an important bearing on the final product. Such investigation has in many cases brought to light, through tracing process effects on fibre length and strength, conditions wherein the

staple was being injured by improper manipulation in certain processes. For example, excessive beating in the pickers has been discovered by the application of fibre strength tests, a decided drop having been observed at the card; improper roll settings in the roving and spinning processes have caused fibre breakage which was readily made apparent by fibre length tests of the products of the several processes. In both exemplary cases, the conditions were easily corrected after the causes were discovered by means of such analyses.

A great deal of study has been devoted to certain fabrics which have given trouble, and usually always with the discovery of the causes of unsatisfactory cloth. Photography has been found to be a great help in such work, as well as in other types of work, for in many cases a properly magnified photograph representative of the cloth structure will bring to light the true conditions to better advantage than will the usual physical tests. In all cases the photographic contribution has been found to be a very important and helpful adjunct to the information supplied by fabric analysis.

Photography has also been found to be especially helpful in studies of slashing, cross-sectional photographs of the sized yarn affording pretty definite evidence as to the nature of the sizing, is penetration and unevenness or lack of evenness of the size ring. Other applications are concerned with studying sizing ingredients and the nature of the mixture to determine if it has been properly cooked.

Very often it is desirable to provide a permanent record of an unusual characteristic of a material, such as a failure in service or a defect in the material responsible for a failure, and such conditions are readily photographed and are naturally of an interesting and valuable character. It is very seldom that a good photograph fails to find and record the cause of the trouble.

It has been attempted to discuss in a rather general way this type of research which is being applied in various laboratories throughout the textile industry. It seems that there is no limit to the nature and number of calls which are made on the laboratory and it is seldom that the laboratory has been unable to contribute some worth-while assistance to the mill, finishing plant, or sales organization in response to such calls. Thus is the research department meeting the demands of industry, studying its problems and contributing largely to their solution.

A more fundamental type of research is being carried on by the British Cotton Industry Research Association. This organization was established in 1918, and is maintained by corporations and firms engaged in any of the branches of the

(Continued on Page 12)

The Filling Wind System Is Better Equipment Only When The Spooling Is Right

The economy in spinning, spooling and succeeding operations in the mill, when filling wind spinning is used, has been exhaustively tested and is now conceded by practical cotton manufacturers and mill engineers generally.

But success or failure of the Filling Wind Method is controlled largely by the Key Operation—Spooling.

If Filling Wind Spooling is NOT more economical than Warp Wind Spooling, the cause is usually an improvised or unscientifically designed tension attachment on the Spooler.

The Foster No. 32 Spooler Guide Insures Perfectly Filled Spools, Low Spooling Cost, No Kinks

This Spooler Tension Guide has been designed for mills that are interested in changing their spinning from Warp Wind to Filling Wind, or who now have Filling Wind, but on account of spooling difficulties or spooling costs, have been unable to develop the full economy of the Filling Wind method.

Its function is to build a spool of yarn of even density throughout, making the spool soft or as hard as desired; containing the highest possible yardage and free from all kinks.

The important feature is that tension on the yarn may be changed quickly to suit different yarn conditions and when determined will not vary and cannot be put out of adjustment or tampered with.

The No. 32 Spooler Guide has been developed for use on any make of spooler and in connection with any make of slub-catcher guide.

May we have the privilege of explaining to you in detail the big part played by the Foster No. 32 Spooler Guide in the success of the Filling Wind method?

Foster Machine Company

OFFICE AND WORKS

WESTFIELD,

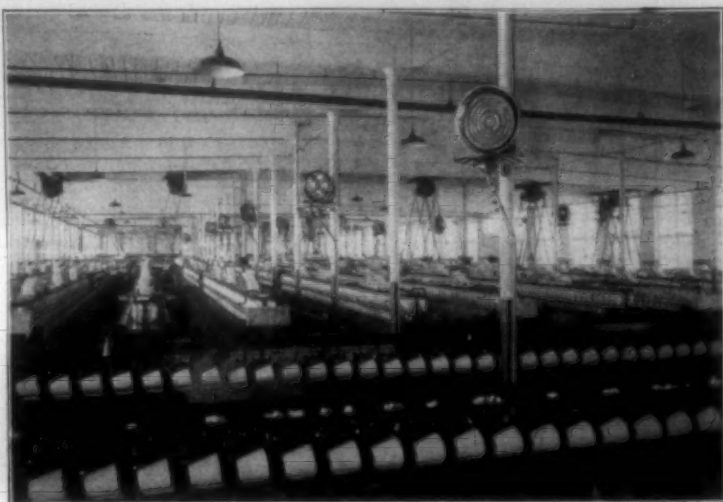
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MASSACHUSETTS





"Better Humidifying Equipment" in operation in Ruby Cotton Mills, Gastonia, N. C.

The Season for Installing Better Humidifying Equipment.

One of the likable features of the Bahnson System is its flexibility.

Many manufacturers take advantage of the fact that each Bahnson Humidifier is a complete humidifying unit in itself by installing a few at the time and adding others when funds are most available, thus reducing the initial cost of a humidifying system, but at the same time getting humidity into those departments where it is needed most.

If your present system is wearing out, use a few Bahnson Humidifiers to strengthen it as the old ones give out, until the worn out system is replaced.

If your present system does not meet your requirements, use Bahnson Humidifiers to bring it up to the desired efficiency.

If you have some small departments in which you want humidity—a laboratory or a test room perhaps—use a Bahnson Humidifier.

In short—Bahnson Humidifiers will fit into practically any department in your mill at any time—Economically and Efficiently.

And if you want your entire mill equipped with a BETTER humidifying system, use BAHNSON HUMIDIFIERS.

Our services are yours for the asking.

The BAHNSON Company
Humidification Engineers

Winston-Salem, N. C. New York Office: 437 Fifth Avenue

Southern Mill Dividends

A list of dividends paid by many Southern mills for the six months ending June 30 has been compiled by A. M. Law & Co., brokers, of Spartanburg.

South Carolina Mills.

The following is a list of South Carolina mills with the dividend rate, the capital stock and the amount of the dividend:

Abbeville Cotton Mills, 3½ per cent; \$635,400 common, \$22,239.
Alice Mills, 3½ per cent; \$500,000 preferred, \$17,500.

American Spinning Co., 5 per cent; \$525,000 common, \$26,250.

Aragon Cotton Mills, 2 per cent quarterly; \$500,000 common, \$10,000.

Aragon Cotton Mills, 3½ per cent; \$460,000 preferred, \$5,600.

Arcadia Mills, 5½ per cent; \$200,000 preferred, \$10,000.

Arcadia Mills, 3½ per cent; \$800,000 preferred, \$28,000.

Baldwin Cotton Mills, 4 per cent annually; \$800,000 common, \$32,000.

Baldwin Cotton Mills, 7 per cent annually; \$182,400 preferred, \$12,768.

Beaumont Mfg. Co., 5 per cent quarterly; \$200,000 common, \$10,000.

Beaumont Mfg. Co., 3 per cent; \$200,000 preferred, \$6,000.

Belton Mills, 3½ per cent; \$1,400,000 preferred, \$49,000.

Brandon Mills, 3½ per cent; \$500,000 preferred, \$17,500.

Brogan Mills, 2 per cent quarterly; \$1,321,600 common, \$26,432.

Chesnee Mills, 5 per cent; \$394,000 common, \$19,745.

Chiquola Mfg. Co., 5 per cent; \$358,000 common, \$17,900.

Chiquola Mfg. Co., 3 per cent; \$358,000 preferred, \$10,740.

Clifton Mfg. Co., 4 per cent; \$2,500,000 common, \$100,000.

Clinton Cotton Mills, 4 per cent; \$350,000 common, \$14,000.

Cowpens Mills, 4 per cent; \$100,000 preferred, \$4,000.

Darlington Mfg. Co., 3½ per cent; \$300,000 common, \$10,500.

Darlington Mfg. Co., 3½ per cent; \$500,000 preferred, \$17,500.

Duncan Mills, 1½ per cent quarterly; \$1,000,000 preferred, \$12,500.

Enoree Mills, 1½ per cent quarterly; \$365,000 preferred, \$6,387.

Equinox Mills, 5 per cent; \$300,000 common, \$15,000.

Fairmont Mfg. Co., 3½ per cent; \$150,000 preferred, \$5,250.

Gaffney Mfg. Co., 3½ per cent; \$1,600,000 common, \$56,000.

Glenwood Cotton Mills, 2 per cent; \$1,200,000 common, \$24,000.

Gluck Mills, 5 per cent; \$450,000 common, \$22,500.

Grendel Mills, 3½ per cent; \$750,000 preferred, \$60,000.

Hartsville Cotton Mills, 3½ per cent; \$750,000 common, \$60,000.

Inman Mills, 3½ per cent; \$600,000 common, \$21,000.

Jackson Mills, 4 per cent; \$345,000 common, \$13,822.

Judson Mills, 3 per cent plus 1 per 500 plus 22,500.

Judson Mills, 1½ per cent quarterly; \$1,000,000 preferred, \$12,500.

Lancaster Cotton Mills, 5 per cent; \$1,600,000 common, \$80,000.

Lancaster Cotton Mills, 3½ per cent; \$80,000 preferred, \$28,000.

Laurens Cotton Mills, 4 per cent; \$1,050,000 common, \$42,000.

Lydia Cotton Mills, 4 per cent; \$160,000 common, \$6,400.

Kollohon Mfg. Co., 3 per cent; \$750,000 common, \$22,500.

Martel Mills, 1 per cent quarterly; \$1,000,000 common, \$10,000.

Martel Mills, 1½ per cent quarterly; \$1,071,400 preferred, \$18,749.50.

Monarch Mills, 3½ per cent; \$8,000,000 common, \$105,000.

Monarch Mills, 3½ per cent; \$1,000,000 preferred, \$35,000.

Mills Mill, 4 per cent; \$264,700 common, \$10,588.

Mills Mill, 3½ per cent; \$264,700 preferred, \$9,264.50.

Oakland Cotton Mills, 3 per cent; \$50,000 common, \$15,000.

Orr Cotton Mills, 4 per cent; \$800,000 common, \$32,000.

Orr Cotton Mills, 3½ per cent; \$800,000 preferred, \$28,000.

Pacolet Mfg. Co., 5 per cent; \$2,000,000 common, \$100,000.

Pacolet Mfg. Co., 3½ per cent; \$2,000,000 preferred, \$70,000.

Pickens Mills, 2 per cent quarterly; \$750,000 common, \$15,000.

Piedmont Mfg. Co., 4 per cent; \$1,600,000 common, \$64,000.

F. W. Poe Mfg. Co., 2 per cent quarterly; \$2,000,000 common, \$40,000.

Poinsett Mills, 3 per cent; \$474,000 common, \$14,220.

Saxon Mills, 3 per cent; \$900,000 common, \$27,000.

Spartan Mills, 4 per cent; \$2,000,000 common, \$80,000.

Toxaway Mills, 2 per cent quarterly; \$500,000 common, \$10,000.

Victor-Monaghan Co., 1½ per cent quarterly; \$1,058,000 preferred, \$18,515.

Ware Shoals Mfg. Co., 4 per cent; \$1,000,000 common, \$40,000.

Ware Shoals Mfg. Co., 3½ per cent; \$300,000 common, \$10,500.

Whitney Mfg. Co., 3½ per cent; \$600,000 common, \$21,000.

Williamston Mills, 2½ per cent quarterly; \$600,000 common, \$15,000.

Winnboro Mills, 2 per cent quarterly; \$2,000,000 common, \$40,000.

Winnboro Mills, 1½ per cent quarterly; \$2,500,000 preferred, \$25,000.

Woodruff Cotton Mills, 3 per cent; \$787,500 common, \$23,625.

Woodside Cotton Mills Co., 3½ per cent; \$1,763,760 common, \$61,731.60.

Woodside Cotton Mills Co., 3½ per cent; \$2,263,760 preferred, \$79,231.60.

The dividend figures for a large number of leading mills, located in other States, with the rate, capital stock and amount of dividend follow:

Altavista Cotton Mills, 3½ per cent; \$250,000 preferred, \$8,750.

Bladenboro Cotton Mills, 3 per cent; \$265,000 common, \$7,950.

Columbus Mfg. Co., 4 per cent; \$1,400,000 common, \$56,000.

Dacotah Cotton Mills, 5 per cent; \$600,000 common, \$30,000.

Dacotah Cotton Mills, 3½ per cent; \$35,100 preferred, \$12,285.00.

(Continued on Page 28)

At Last You Can Reap The Advantages of Filling Wind Without Fear of Tension Trouble

What cotton mill man has not at some time longed for the advent of a satisfactory spooler tension device, which would enable him to abandon warp wind and adopt the newer and more efficient filling wind method which reduces waste and gives so much greater production and so much better running work?

Cotton manufacturers have stuck to the warp wind method only because they had been unable to find a thor-

oughly satisfactory device which would furnish the correct amount of tension necessary in winding a filling wound bobbin onto a spool. Cotton mill machinery makers, until recently, have frowned on tension devices, not because of any hostility to filling wind, but because none of the devices on the market fully met the Fundamental Requirements of An Ideal Tension Device problem under all conditions.

Because it fully meets every one of these requirements both in the testing laboratory and in practical everyday work in the cotton mill, and is the only tension yet devised which does meet them all fully in everyday practice, the

L. V. B. Spooler Tension Device

is presented to the cotton manufacturing industry as the long-sought "Perfect Tension" which will make it possible for any cotton mill, regardless of the class of work it does, to adopt the filling wind method and reap the advantages that are universally admitted to go with it.

Even Tension

The L. V. B. device maintains an absolutely even steady tension no matter how fast or slow the yarn runs, whether the spool or the bobbin be empty or full and regardless of the position of the traverse.

Instantly Adjustable

The L. V. B. Tension is instantly adjusted merely by moving the weight to any given position, and can be used on any size yarn from the coarsest to the finest, not excluding numbers about 150s. The tension is positive and absolutely uniform at all times.

Self-Cleaning

The L. V. B. Tension is self-cleaning, being cut out under the tension arm with the exception of two cylindrical pins over which the yarn passes. Lint and dust have no place to collect, but fall directly onto the floor.

Self-Threading

The L. V. B. Tension is self-threading. A wire guard serves to guide the yarn into position after the end is pieced up. The natural motion of the yarn keeps it in proper position afterward.

Extremely Sensitive

The L. V. B. is the most sensitive tension on the market. The pressure is applied through a weighted spring. It has plenty of give to meet all irregularities in the yarn without bouncing or binding, and the fact that there are two pressure points makes it impossible for the tension to relax even for the most infinitesimal fraction of a second. It is the most perfect substitute for the human finger that has yet been devised.

Successful At Any Speed

It is simple to attach to any form of cotton mill machinery where a tension is required, and does not fasten to the traverse rail. It will work equally well at any speed with any size bobbin or spool and with any size yarn. In the mills where the L. V. B. Tension is already in use it has been found perfectly feasible to run the yarn at speeds as high as 1200 to 1500 R. P. M. Every mill man knows what this means from a production standpoint.

We are willing to have you base your opinion of this device on its actual performance and will be glad to install a sufficient number of devices in your mill on approval. No obligation on your part, until the device convinces you that it is practical.

A. B. CARTER

Southern Agent
GASTONIA, N. C.

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THIN BOILING

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UNIFORM
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whether it be for one bag or a carload.

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QUALITY AND SERVICE SINCE 1866

Recent Accomplishments in Research

(Continued from Page 8)

textile industry. The purposes of this association, as quoted from the "Shirley Institute," March, 1922, are as follows:

"The objects of the British Cotton Industry Association have been explained in detail in a pamphlet published by the Provisional Committee, under the title of 'Scientific Research in Relation to Cotton and Cotton Industry.' It was there pointed out that the success of the cotton industry, like that of others, is dependent on cheaper and better production; that our supremacy can only be maintained by the carefully planned, systematic and continued application of science to the principles and practice of the industry, and that is it could hardly be expected that individual firms or even large associations would undertake such a task separately; a research association embracing all sections of the industry was necessary. The industry as a whole must become imbued with the spirit of science in order that it may utilize, to its own fullest advantage, the results of scientific research.

"Emphasis was placed also on the fact that the usefulness of any discoveries which may result will depend largely on the intelligence brought to bear upon them by the different sections of the industry."

It is quite evident that the leaders in the British cotton industry are fully alive to the advisability, if not the necessity, of research if the industry is to progress and develop.

During the several years which have followed its establishment, this association has contributed interesting and valuable reports of many investigations which have been conducted in its laboratories in the Shirley Institute. As has been indicated, these investigations have taken the form of what we would term "fundamental research," and an idea of the subjects studied may be obtained from the following list which has been prepared more or less at random from the Institute's organ, "The Journal of the Textile Institute," a monthly publication bearing a wealth of interesting and valuable reading, and from the Institute's "Memoirs," which are published at intervals:

"The Structure of the Cotton Hair and its Botanical Aspects."

"The Measurable Characters of Raw Cotton."

"A Study of Convolutions in the Cotton Hair."

"The Chemical Analysis of Cotton."

"The Mechanical Testing of Cotton Materials."

"The Mercerization of Cotton."

"The Physical Causes of Lustre in Cotton."

"Sizing: A Review of the Literature."

"The Lustre of Doubled Yarns."

"Some Physical Tests on Sized Yarns."

"The Physical Properties of Yarns Under Oscillating Stresses."

"A Comparison of the Yarn Spun on the Casablancas System With Ordinary Ring Yarn, etc."

This affords a very small inkling into the nature and scope of the work undertaken thus far, but is sufficient to indicate that the British Association is delving into explored or only partly explored fields of well merited study for the purpose of augmenting present-day fundamental knowledge covering a very wide range of important subjects. That the cotton industry will benefit from this type of work cannot be questioned, even though the results in all cases may not be recognized immediately.

We have no similar organization in this country, although several of the government departments, notably the Bureau of Standards and the Department of Agriculture, which more closely approach it than any other agencies, have done and are doing a great deal of a similar type of work which is benefiting the industry as a whole. The Bureau of Standards has made a great number of original researches and has also been a vital factor in standardization throughout the industry. The Department of Agriculture has gone far in its comprehensive studies of cotton, from the growing to the grading and marketing, and great benefits and improvements all along the line have resulted from this experimental and research work, which has been fully discussed in the department's publications.

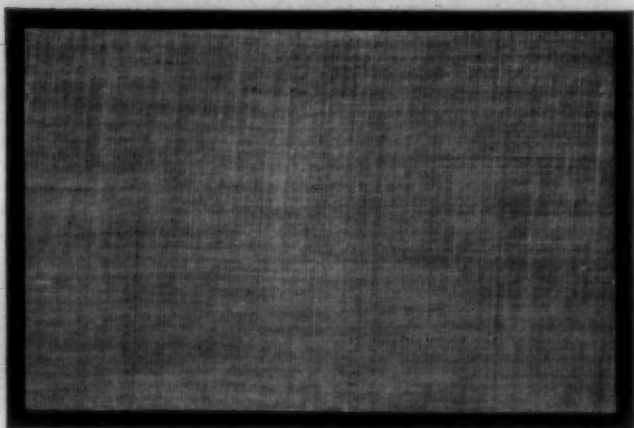
After all is said and done, one of our greatest needs in industry as a whole and certainly in the textile industry, is that of producing and manufacturing more cheaply, since lower costs mean lower selling prices, which in turn stimulate buying on the part of the masses and thus the greatest good for the greatest number is accomplished. Perhaps one of the most outstanding examples of producing cheaply is to be found in the Ford Motor Company, and this subject is dealt with in a chapter of Henry Ford's recent book, "My Life and Work." Mr. Ford shows that the price trend of his product has been downward from the beginning, barring occasional interruptions due to difficult conditions and unusual circumstances. These lower prices have, of course, gone hand in hand with increased production, but it is significant that Mr. Ford's point is that "if prices are sufficiently low; buyers will always be found, no matter what are supposed to be the business conditions," and thus far his aim has been to produce cheaply and more cheaply in order to make possible these continuous reductions in the selling price of his product, from year to year. The narration of how Mr. Ford has brought about his lower costs, while at the same time perfecting his product, provides most interesting reading. His savings through elimination of waste have been nothing short of prodigious. The greatest factors in such savings have come about through the application of research methods in the various processes and departments, and through standardization and decentralization of work. To quote Mr. Ford:

"Standardization, then, is the final stage of the process. We start with

(Continued on Page 32)

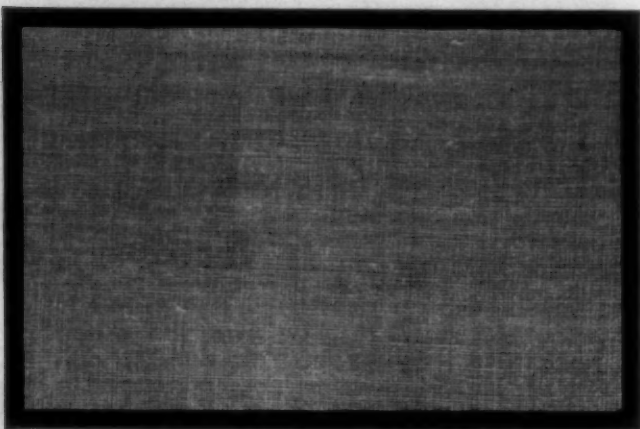
Imported Cotton Cloths

From Survey of United States Tariff Commission.



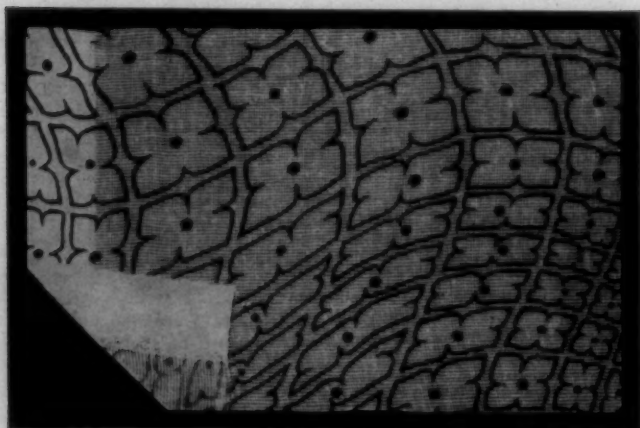
Sample No. 32.—Cotton Mull.

Plain woven. Finished width, 44 inches.
94 ends and 92 picks per square inch, finished.
Warp yarn, 87s. Filling yarn, 117s.
Weight, 10.07 linear yards (12.31 square yards) per
pound, finished.
Bleached and mercerized.



Sample No. 33.—French Lawn.

Plain woven. Finished width, 47 inches.
78 ends and 76 picks per square inch, finished.
Warp yarn, 99s. Filling yarn, 107s.
Weight, 11.67 linear yards (15.24 square yards) per
pound, finished.
Bleached.



Sample No. 34.—Ply Voile.

Plain woven. Finished width, 38 inches.
69 ends and 56 picks per square inch, finished.
Warp yarn, 110/2, hard twisted. Filling yarn, 110/2,
hard twisted.
Weight, 8.81 linear yards (9.30 square yards) per pound,
finished.
Bleached, and printed with a wavy blue design.

WATER-PROOF



THE greatest forward step the belting industry has ever known was the invention of water-proof leather belting. This was accomplished in 1860 by J. B. Hoyt, founder of the Edward R. Ladew Company.

This first water-proof leather belt was known as Hoyt's "Turtle." Ladew has kept this pioneer brand. They have improved it as belting science developed. To-day "Turtle" still stands as an acknowledged leader—guaranteed for service in water or moisture.

If you have drives that must operate under conditions which destroy ordinary belting, get lasting satisfaction and economy by using "Turtle" Water-proof Leather Belting.

EDW. R. **LADEW** CO., Inc.

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Advantages of Better Mill Equipment

Articles Submitted in Prize Competition On This Subject.

Number Sixteen

During the last few years there have been so many improvements in cotton mill machinery and so many labor-saving devices offered that have enabled us to increase production and at the same time lower the cost of same that it is a difficult task for one to determine just which improvement deserves the greatest praise.

However, speaking from personal experience in connection with a coarse goods mill of 8,000 spindles which uses something like 450 horsepower, I can think of no machinery or device which we have installed during the last ten years that has been of greater value to us—considering the cost—than has the Force Draft System which we placed under our boilers in 1916. Previous to 1916 we had used what is usually termed the "Natural Draft" system, that is, the natural draft induced by the smokestack.

The principle on which the Force Draft System to which we refer operates as follows:

There is a large fan placed near the furnace, the propellers of which fan are directly connected to the crank shaft of a specially designed upright engine which is driven by steam from the boiler. There are air conveyers leading from the fan to the burners, or grates, under the boilers, and the air draft is fed through the grates from the under side. The burners are specially designed for the work with spaces about $\frac{1}{8}$ " thick and about $1\frac{1}{2}$ " apart. These small openings allow only the finest dust and ashes to sift through into the troughs beneath and at the same time permit the draft to filter through the grates in a uniform manner, covering the entire area of the grates simultaneously. In connection with the fan and engine there is an automatic device for varying the speed of the engine. Of course, as the speed of the engine varies, so does that of the fan since the fan is directly connected to the crank shaft of the engine, and as the speed of the fan varies, so does the amount of draft which is produced by the fan. As the steam pressure in the boiler rises to the desired height, this automatic device slows down the speed of the engine and in turn cuts off the draft, then as the steam pressure is gradually lowered in the boiler, this device speeds up the engine and increases the draft thereby causing more intense heat until the desired pressure is again obtained. This control device contains a gauge which can be so set that the engine will speed up or slow down at any desired steam pressure in the boiler. In our particular plant we have it set so that it will slow down at 120 pounds pressure and speed up at 115 pounds pressure.

When the salesman first presented

to us the advantages of the Force Draft System we were skeptical of the results which we might obtain, and we were persuaded to purchase the system only after we had been permitted to pay for the cost of the equipment, which was \$2,500, out of the savings obtained in our fuel by the use of said system. In addition to this form of payment our purchase was made with a written guarantee from the distributor that we would be able to burn all kinds of marketable coal upon its grates, and that with the system installed, we would use no more slack coal than we had been using mine run coal per horsepower developed. Following the installation of the system we made a number of tests which verified the truth of the distributor's claims and we found that by using the force draft system we were able to get as good results from the use of slack coal as we had previously gotten from mine run coal under our old method. By figuring the difference in the price of mine run and slack at that time we were able to save about \$140 per month. Payments were arranged on this basis and at the end of the first eighteen months the force draft system had paid for itself out of the savings on fuel.

We have used this same system continually during the years since 1916, during which time it has paid for the original cost many times over in the savings on fuel. Not only has there been a great saving in dollars and cents in the fuel account but we feel that this system has increased our production materially by enabling us to maintain a steady steam pressure and hence adequate power. Previous to the installation of this system we were annoyed almost daily by the firemen's inability to keep the steam up and frequently we were forced to shut down a part of our machinery while steam was being raised. Overcoming this difficulty has been worth the price of the system to us even if there had been no real saving on the fuel.

For mills using coal for fuel we consider this system as being indispensable.

Mike.

Number Seventeen

In beginning an article on this subject I must acknowledge that the equipment in Southern cotton mills is as modern or almost up to any other section. But since the begin-

ning of labor-saving machines for better equipment, man himself must strive to equip himself better or go stale.

To better equip does not mean a mill must replace all their machinery. They may have a poor out-of-date system of opening, so by only putting in vertical openers increase the production (quantity and quality) ten or more per cent, or they may replace their pickers with like results.

About twelve years ago a certain mill in South Carolina commenced replacing their old machinery with new and up-to-date machines by only a machine or so per year. Now they have one of the best equipped mills in the State.

Some mills have almost an up-to-date equipment in the carding department, with out-of-date spinning and looms. Others may have modern spinning, but old card room equipment. A few old out-of-date machines can only be a drag to the entire mill.

For the last ten or twenty years the advancement and improvement in carding and spinning machinery has been on a real high plane. It is almost possible now to equip an ideal mill for either plain or fancy weaving. We can almost see a mill in the near future where they have no stamp for seconds and where there is a smile on the face of a cross-eyed sweeper.

Such a mill equipped today would have (as I see it) for carding department:

Vertical Openers — Modern ball bearing pickers, modern top flat cards with dustless strippers, low speed metallic roll ball bearing drawing, ball bearing rolls on all fly frames, plenty humidity.

Spinning — Modern tape drive, plenty humidity.

Weaving — Any good automatic change loom, plenty humidity.

A regular uniform system of oiling in all departments.

There are two mills in my neighborhood with almost the two extremes in machinery equipment. One mill (which we will call Mill No. 1) has old out-of-date opening, pickers, cards and fly frames. The spinning is also of the old out-of-date make. But this mill has modern looms.

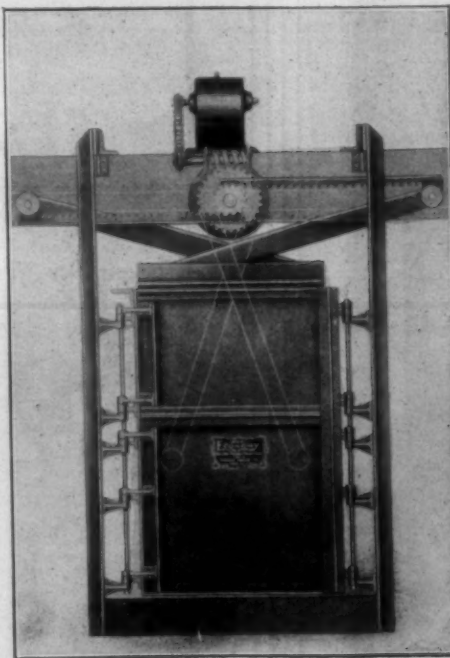
Mill No. 2 has a large opening room where there can be from 50 to 100 bales of cotton opened at once and mixed. Vertical openers: Modern ball bearing slow speed pickers making a light lap for modern dustless stripper cards with high speed lick-in making a sliver (the carder said) seldom varied 2 per cent. Modern slow speed metallic roll drawing, good make fly frame with ball bearing rolls, plenty (clear water) humidity, modern tape drive spinning, an up-to-date circulating system for size and modern slow speed slashers.

(Continued on Page 31)

ALL STEEL
ECONOMY
FIRE PROOF

YARN
PRESS

Direct Motor Connected — Completely Inclosed Chambers
"JUST WHAT EVERY YARN MILL NEEDS"



this Economy yarn press, and assure you that you would receive satisfactory service. The users of press are well satisfied with this yarn press, because it is convenient to load with great pressure and rapid in operation. Very substantially constructed.

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for changing our
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Mechanical and construction principles do not alone explain the selection of TOLHURSTS by the nation's leading industries — nor does actual performance during the past forty-five years explain, though it amply justifies the wisdom of their choice.

Preference is due to their being built by Extractor Specialists whose experience and ability are part of every machine. All factors instill confidence that TOLHURSTS will render the utmost in service.

Send for catalog illustrating Tolhurst Extractors



TOLHURST MACHINE WORKS, Troy, N. Y.

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Knit Goods

Specking Knitted Fabrics

THE object of specking knitted fabrics is to remove the fine pieces of burrs, shives, bits of straw or any foreign substance which has escaped the preliminary processes and clung to the texture until the goods are nearly finished and ready for the market. These prickly pieces of vegetable matter are exceedingly annoying in any fabric which is worn next to the skin owing to the scratching and irritating they cause. Before the days of efficient carbonizing of textile fiber many of these foreign substances frequently remained in the completed article of wear indefinitely or until the wearer of the garment pulled them out. Modern processes of eliminating the vegetable substances of this character have done much toward correcting the trouble. Still there are specks in some goods caused by poor carding, consisting

If a piece of burry knitted fabric is placed beneath a magnifying glass and the texture enlarged, as shown in Figure 1, it will be noticed that some of the burrs have attached themselves very firmly in the loops as indicated by the solid black piece representing a burr.

If the entire length of the burr is enclosed within the grip of the threads of the loops the wearer of the garment will not be bothered very much by it. But in most cases the thin, stiff, elastic point of the burr projects outward just far enough to form a powerful scratching property. The reputation of a manufacturer of knitted goods can be seriously affected by turning out a product containing burry substances. Girls are employed to attend to these burrs in case burry stock has been used, but even the sharpest of young eyes cannot detect all of these miniature foes. Some of the burrs are almost completely concealed in the texture, but manage to work their destructive points out after the garment has been worn. Some are so securely attached that it is not possible to remove them without endangering the loops. A hole might be made in the goods and rather than cause such a defect the girl lets the burr pass. Hence carbonizing of the stock is resorted to if it is of the animal class.

Carbonizing Burry Stock.

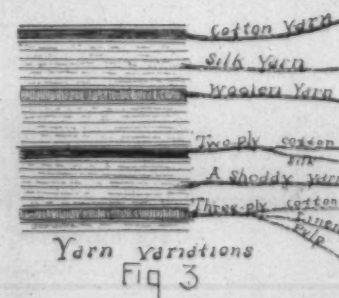
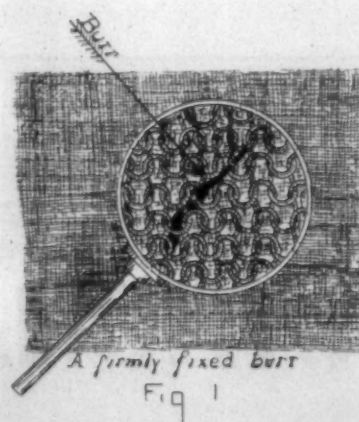
Sulphuric acid is extensively used in the process of carbonizing the burry stock out of animal fiber, although chloride of alum, strong salts solutions, acid vapors and chloride of magnesium are also used for this service. The stock to be treated may be all animal fiber or it may be of the remanufactured class containing cotton, silk, linen or pulp mixtures as illustrated by the yarn variations shown in the sample in Figure 3. The treatment of the stock, in which the fiber contains a variation of staple, as in this instance, would be similar to that used in preparing extracts. Extracts are made from tailors' clippings or rags of the junk shop composed of both an animal and a vegetable fiber. A single piece of this cloth may be made up of as many kinds of yarn as shown in the illustration.

The shoddy threads in the piece may be composed of a blend of both animal and vegetable fiber. The three-ply threads used to produce a rib effect in the pattern may be composed of cotton, linen and a pulp strand. Pulp threads are those produced from wood or other pulp and drawn out into a filament for use in conjunction with one or more textile threads in two or three-ply twists as in the sample.

It may be desired to salvage the animal fiber out of a batch of some hundreds or thousands of pounds of rag stock of this class.

The carbonizing process conducted with any of the above mentioned

(Continued on Page 28)



of particles of the stock which has not been properly opened and disentangled. Such specks will not cause annoyance to the wearer of the goods by scratching as they will be soft. But the lumpy condition injures the appearance of the texture, particularly if the lumps are different in color from the ground.

Spinning Frame Improvements

By a Representative of the Saco-Lowell Shops.

There is another point which the manufacturer had to study in the manufacture of textile machinery to have their frames able to stand the speeds which the mills wish to run; that is, the study of spinning rings. All manufacturers recognize that the limit of the speed in spinning is the ring and its traveler, and the strain on the yarn, due to the ballooning in spinning. The improvements in the spindle and the roll have been accompanied by improvements in the ring, and now the strain of the yarn is practically the only limit to speed. A smooth finished, perfectly round ring, made up of a durable quality of material, has lessened the difficulty in spinning at the points of the ring and the traveler.

Ring rails are now so balanced and aligned with the spindle that the rings can maintain at all times their concentricity at this point. We might also add that the new type metallic thread board and Palmer guide, which is an improvement used on the wooden thread board, have made it possible to keep the thread guide absolutely in line with the spindle.

All of these improvements are the contribution of the textile machinery builders to better running, high speed spinning.

Another improvement which is sometimes overlooked by mills in comparing the advantages of the new frames with the old frames is the improved decimal hank clock. This new type clock clearly indicates hanks in tenth of hanks. Its figures are just like the figures on an automobile speedometer where the number of miles traveled are registered. Many practical mill men know how many arguments would be saved if they had a new decimal hank clock on their spinning frames instead of the old clocks, which register only in full hanks. This is particularly true where a mill is running night and day; the day man claims more hanks and the night man claims more hanks.

We cannot pass over, in speaking of improvements on spinning frames, the individual motor driven spinning frame. All shops are prepared to furnish either the belt drive or the individual motor driven frame, and many mill men have entirely different ideas on this subject. They all realize that to do away with certain belting expense, which is always with them, and at the same time they have a lighter and more pleasant room in which their employees work.

We all know that light is a great factor in the quality of work that a mill produces. You cannot expect the best work from a poorly lighted room. We think that a belt driven spinning frame, with a large pulley, say, 12-inch diameter on the motor, a 12-inch to 16-inch pulley on the spinning frame, a low speed motor will give satisfactory results, but we know that a high speed motor and a small pulley will not compare

with the results obtained by the new modern frame, driven by an individual motor and a chain drive.

It is for the above reasons that we say that a modern spinning frame can easily produce 10 or 12 per cent more than an old obsolete spinning frame. This has been made possible by certain theories that have been advanced in spinning, and have later proven to be practical, and by the fact that the machinery builders have kept their spinning improved, so as to take advantage of these advanced ideas of spinning.

To show you what a 12 per cent increased production would mean in a 50,000-spindle mill making 23s yarn, we will take some figures which in normal times we believe will not be far wrong. Fifty thousand spindles installed in a mill will represent an investment of about \$350,000. The production in a 60-hour week of these 50,000 spindles on 23s yarn is approximately 100,000 pounds. Twelve per cent increase over this would be 12,000 pounds. If you were making 4 cents per pound clear profit, your profit, without increase in labor cost, would be \$24,000 a year. If your spinning labor cost was 2 cents per pound, and there was no additional labor, you would add to this \$12,000. If by any chance, through the use of modern frames, you increase the quality of your yarn so that you could get 1 cent per pound premium over your former poor quality of yarn, you would add \$56,000 to the above account. The repair cost for maintaining the tape on tape drive frames would save you about \$1,500 a year, which would be added to the above account, thus, according to these figures, you would save, by having a modern equipment of spinning \$93,500 annually.

With an investment of \$350,000, this \$93,000 would pay all interest charges, and in less than five years by the additional profit.

These figures, of course, will not hold in unusually hard times, but you can revise them to suit your own costs, and your own conditions, and we believe that you will see the wisdom of replacing your very old spinning with new modern tape driven wide gauge, filling wind frames.

The only way that textile machinery builders can keep prices of their machinery as low as they are today is for them to buy improved equipment continuously, and let this improved equipment do away with a lot of high priced labor. This same condition exists in cotton mills and every kind of manufacturing today, because of our inflated wages. The railroads made their conditions livable by spending money on their grades and buying better and larger locomotives, so that one engineer and one fireman, instead of pulling a train of 20 cars, could pull a train of 80 cars, and in this way they reduced the amount of labor to the volume of their business. Every

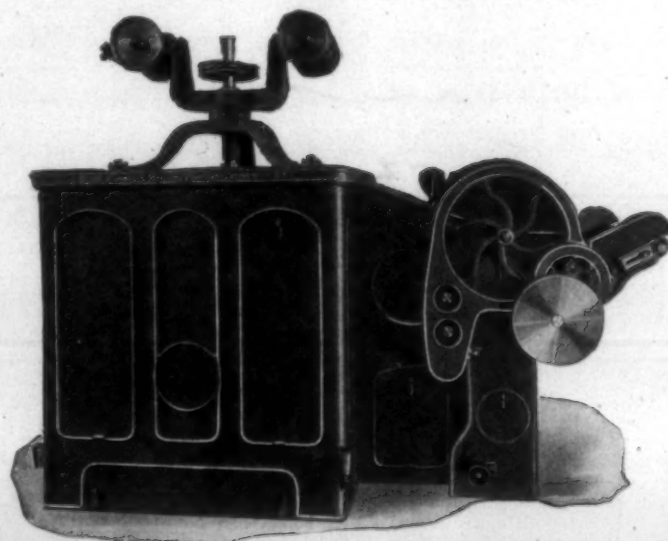
(Continued on Page 27)

COTTON MACHINERY

WE BUILD A COMPLETE LINE OF
Cotton Opening Machinery

ILLUSTRATED BELOW IS OUR
NEW MODEL CRIGHTON
OPENER

With Cage Section and Apron Delivery



The superior cleaning qualities of this type of Opener, for working medium and low-grade cottons, have been recognized by many of the leading cotton manufacturers in this country.

In this machine, the fibre is not subjected to the harsh treatment of beating from the Feed Rolls, and a larger percentage of foreign matter is removed from the cotton than by other methods.

Installations can be made with one, two or three Crightons in a line.

We build these machines with Spiral Gear, direct Belt or Vertical Motor Drive when desired.

Write for Descriptive Bulletin and List of Users

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Are your mill receptacles smooth inside?

It will pay you to look into your receptacle equipment during this slack period

Some mills overlook the importance of smooth receptacles. Rough spots and projections catch and break the delicate fibres of the sliver. Splinters tear hands and clothes of workers.

Diamond Fibre Mill Receptacles are flawlessly smooth—and they stay smooth. Wear does not affect the glossy hardness of the surface. These receptacles cut down maintenance cost.

These receptacles are made of Diamond Fibre—a dense, tough, durable material. It does not crack, splinter, or corrode.

There is a type of Diamond Fibre Mill receptacle made to suit every need in textile mills. You can get doffing trays, mill baskets, trucks, roving cans, boxes, etc., in all standard sizes.

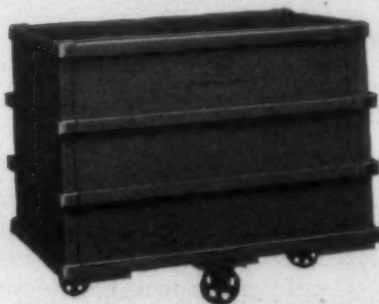
For those whose needs require special sizes, we can build to specifications.

Write for our new booklet, "Diamond Fibre Receptacles." It will give you full information on this line with specifications.

We manufacture a large line of Diamond Fibre Textile Specialties, including such items as: spool heads, loom picks, swift braces, trust washers, spindle guards, shuttles, flier discs, lacing combs, etc.



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L.V.B. Tension Device

By the L. V. B. Tension Co.

THE advantages of so-called "filling wind" in the process of cotton manufacturing are known to all practical manufacturers.

What cotton mill man has not at some time longed for the advent of a satisfactory spooler tension device, which would enable him to abandon warp wind and adopt the newer and more efficient filling wind method which reduces waste and gives so much greater production and so much better running work?

Machinery makers have outlined

3. It must be self-cleaning. That is, it must not allow the lint to accumulate and form slubs on the yarn.

4. It must be self-threading. That is, after the operative ties the knot, the thread should instantly work its way into its proper position and remain there.

5. It must be sensitive. That is, it must be yielding and adaptable, resembling the touch of the human hand.

Because it fully meets every one of these requirements both in the testing laboratory and in practical everyday work in the cotton mill, the L. V. B. spooler tension device is presented to the cotton manufacturing industry as a tension device which will make it possible for any cotton mill, regardless of the class of work it does, to adopt the filling wind method and reap the advantages that are universally admitted to go with it.

Even Tension.

The L. V. B. device maintains an absolutely even steady tension no matter how fast or slow the yarn runs, whether the spool or the bobbin be empty or full and regardless of the position of the traverse.

Instantly Adjustable.

The L. V. B. tension is instantly adjusted merely by moving the weight to any given position, and can be used on any size yarn from the coarsest to the finest, not excluding numbers above 150s. The tension is positive and absolutely uniform at all times.

Self-Cleaning.

The L. V. B. tension is self-cleaning, being cut out under the tension arm with the exception of two cylindrical pins over which the yarn passes. Lint and dust have no place to collect, but fall directly onto the floor.

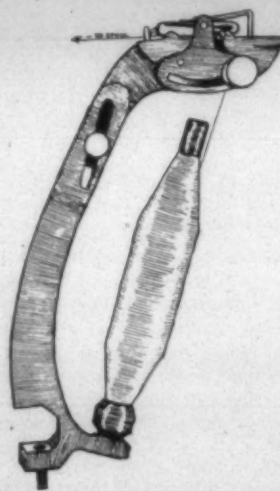
Self-Threading.

The L. V. B. tension is self-threading. A wire guard serves to guide the yarn into position after the end is pieced up. The natural motion of the yarn keeps it in proper position afterward.

The L. V. B. is the most sensitive tension on the market. The pressure is applied through a weighted spring. It has plenty of give to meet all irregularities in the yarn without bouncing or binding, and the fact that there are two pressure points makes it impossible for the tension to relax even for the most infinitesimal fraction of a second. It is the most perfect substitute for the human finger that has yet been devised.

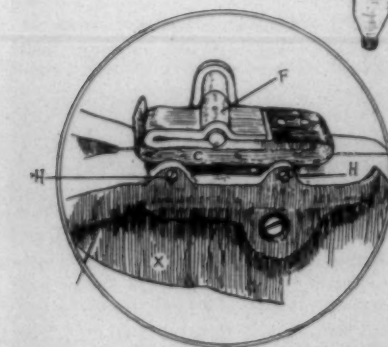
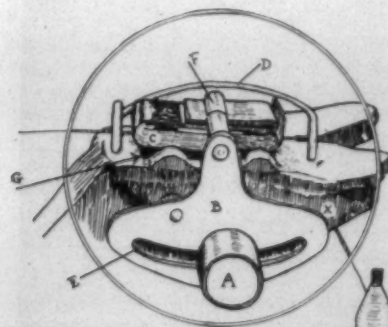
Finally, the L. V. B. tension actually works just as well as it looks. It has been tried out for a period of two years in actual mill practice in and about New Bedford, Mass. It has been used on all classes of work and has met the most exacting conditions, and is highly in favor both with the workers and with the mill executives who have tried it.

The pictures show two views of the device, from opposite sides, the



the requisites of the ideal tension as follows:

1. It must be compensating. That is, it must exert the same or nearly the same amount of tension, whether the bobbin be empty or full,



whether the spool be empty or full and whether the traverse is at the bottom or top.

2. It must be easily adjustable. That is, in order to accommodate any size of yarn, the adjustment must be simple, uniform and positive.

self-threading guide having been removed from the lower picture in order to show the mechanism.

C is steel spring in the form of U. One prong is fastened to the shoe which swings freely on a horizontal pin F while the other prong rests upon two horizontal bars H H. The yarn passes through the Y-shaped jaws of the device, over the top of the two horizontal bars H-H but under the lower prong of the steel spring C.

Plate B is rigidly fastened to the pinion F and carries the weight A which is adjustable at any point in the slot E merely by a twist of the fingers.

D is a heavy steel wire guide which leads the yarn into place beneath the steel spring shoe and acts as the self threader, while the metal fin X not only strengthens the frame of the device but serves to control ballooning of the yarn.

G shows where the metal is cut away in a rectangular hole approximately the size of one prong of the steel spring shoe C. This hole is open at the bottom and is spanned by the two horizontal bars H-H over which the yarn passes. Dust or lint cannot collect under the steel spring shoe, therefore, because it will fall through onto the floor.

The device is practically indestructible, but is so constructed that the steel spring tension shoe, which is the only part upon which any wear might come, can be replaced at infinitesimal cost.

Successful At Any Speed.

It is simple to attach to any form of cotton mill machinery where a tension is required, and does not fasten to the traverse rail. It will work equally well at any speed with any size bobbin or spool and with any size yarn. In the mills where the L. V. B. tension is already in use it has been found perfectly feasible to run the yarn at speeds as high as 1200 to 1500 R. P. M. Every mill man knows what this means from a production standpoint.

The L. V. B. tension will pay for itself in less than two years out of the saving in the spooling cost alone. But more important still to the practical cotton manufacturer, it will make it possible for every cotton mill to adopt the filling wind method, with all the advantage that such a change involves in the spinning room.

Dye Imports Decline

Washington, D. C.—Coal tar dyes imported through New York in June totalled 147,380 pounds with an invoice value of \$154,331, according to statistics compiled by the Chemical Division of the Department of Commerce in collaboration with the Chemical Section of the Tariff Commission. In addition, there were imported through Providence 3,644 pounds valued at \$3,327; Philadelphia, 1,500 pounds, valued at \$1,680, and Boston, 495 pounds valued at \$519.

June imports at New York were the smallest of any month this year, both in quantity and value, being compared with 167,245 pounds in

May, 174,880 in April, 293,862 in March, 158,874 in February and 288,743 in January.

The five leading colors imported last month were trisulphon brown, 9,832 pounds; ciba violet B, 9,259 pounds; alizarine blue black, 7,951 pounds; indanthrene golden orange R, 7,422 pounds, and indanthrene orange golden G, 6,990 pounds.

Germany Sends 49 Per Cent.

Shipments from Germany led in June, as they have every month in 1924, forming 49 per cent of the total last month. Switzerland was second, with 39 per cent, Italy third with 4 per cent, while England's shipments dropped to 2 per cent of the month's total. Holland sent 3 per cent, Belgium and France 1 per cent each and all other countries 1 per cent. Shipments from Germany in June were larger than in May, but smaller than in April.

Many Mills Running in Columbia

Columbia, S. C.—Glencoe Cotton Mill has been running one-half of their equipment since last January, and will continue to run on this basis until more favorable conditions arise, according to T. H. Wannamaker, president of the mills. They were closed down last Friday and Saturday for the holidays. This plant manufactures twines, yarns and ropes.

The Hampton group of the Pacific Mills here, closed down last Thursday for the remainder of that week, but they will resume operations tomorrow and will continue their schedule of 55 hours per week.

This group includes the following mills: Capital City, Granby, Olympic and the Richland, which have 202,048 spindles, 347 cards and 4,800 looms. All these plants are running the same number of hours.

It is understood that the new plant of this organization, near Greenville, will be started Monday.

The plant of the Mt. Vernon-Woodbury Mills, Inc., here, known as the Columbia Mills, also closed last Thursday for the remainder of the week, but will start operations again next week and run 40 hours per week. Their equipment is 30,355 ring spindles and 488 looms.

Martel Mills, Inc., were shut down all last week in accordance with orders from New York. Up to that time they were running four days per week. It has been stated that they will start up next week and run four days. F. T. Parker Company, manufacturing cotton wool and hair press cloths, and 1 S to 6 S yarns, are running full time.

Spanish Textile Conditions.

Conditions in the Spanish textile industry have remained unchanged since the beginning of the year. There is general complaint of dullness and lack of orders but no change is in prospect for the near future so long as the purchasing power of the people is unchanged and cotton prices continue at their present levels.—Consul F. A. Henry, Barcelona, June 3.

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Any accidental oil stains are entirely removed in the kier

A body suitable for each textile lubrication need

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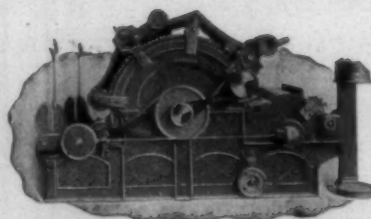
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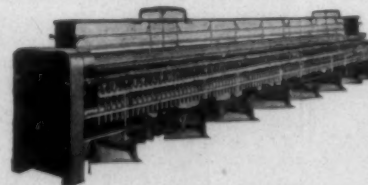
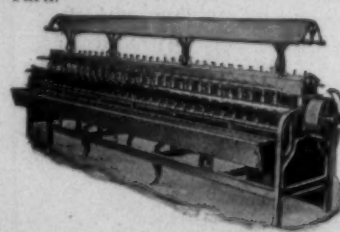
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Pawtucket, R. I.
Charlotte, N. C.



A SUPRISED VISITOR

One of our recent visitors expressed considerable surprise at our equipment and, to use his own words, remarked that "It seems almost unreasonable to be obliged to use laboratory methods in the manufacture of ring travelers." But we have found it has been a splendid investment for us in eliminating rule of thumb methods and a good thing for our customers, as it necessarily assures them of a better product. Send for free samples to try on your own work.

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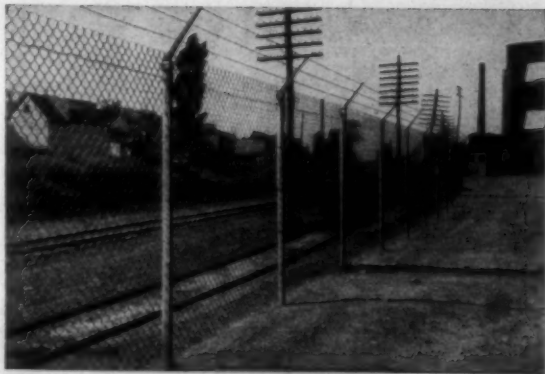
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FIRM—BECAUSE THEY ARE ANCHORED

Anchor Post Fences

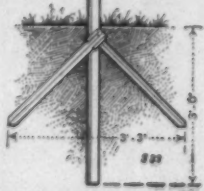
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They stand straight and firm for years—in swamp or dry ground. In fact, many A. P. Fences installed 20 years ago are still in perfect alignment.

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Filling Wind Spooling

By the Foster Machine Co., Westfield, Mass.

THE economy in spinning, spooling and succeeding operations in the mill, when filling wind spinning is used, has been exhaustively tested and is now conceded by practical cotton manufacturers and mill engineers generally.

Briefly some of the economies of filling wind are:

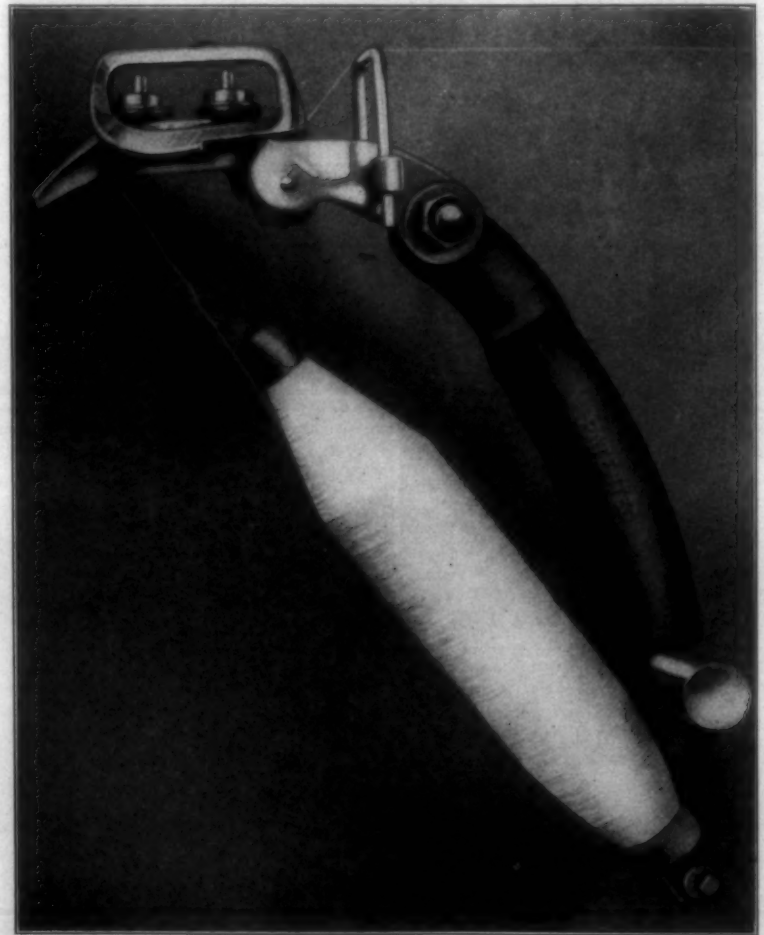
Higher front roll speed and spinning spindle production. The drag of yarn winding on the spinning bobbin is comparatively light. There is no necessity of adding twist to the yarn to favor spooling, as is sometimes necessary in warp wind spinning.

The Foster No. 32 spooler tension-guide has been designed for mills that are interested in changing their

In spooling from filling wind spinning bobbins using the Foster spooler guide, the spindle speed of the spooler is restricted only by the construction of the spooler with regard to wear and tear, as the yarn will draw from the filling wind bobbin equally well whether the spooler speed is high or low.

It is customary to run filling wind spoolers equipped with Foster spooler tensions 100 to 200 per cent faster than it is possible to run warp wind spoolers. The economy here is in floor space and spooler investment.

The finest and softest yarn can be spooled at high speed as the draw from the bobbin is always light regardless of the count and quality of



Foster Spooler Tension Guide.

spinning from warp wind to filling yarn. Softer spinning made possible by using filling wind prevents kinks in the case of necessarily hard twisted yarn, the Foster No. 32 guide will remove kinks that come from the spinning bobbin.

Its function is to build a spool of yarn of even density throughout, making the spool soft or as hard as desired; containing the highest possible yardage and to be free from all kinks.

The important feature of tension on the yarn may be changed quickly to suit different yarn conditions and when determined will not vary and cannot be put out of adjustment or tampered with.

Foster spooler guides produce spools of yarn of even density throughout, having no hard or soft places. The tension may be changed to make the spool hard or soft as required for different qualities of yarn and this condition will not vary unless the attachment is adjusted to give more or less tension.

The work of the operative in piecing ends and the time spent in doing this is most important as it

directly affects the cost of spooling. attachment is readjusted to give more or less tension.

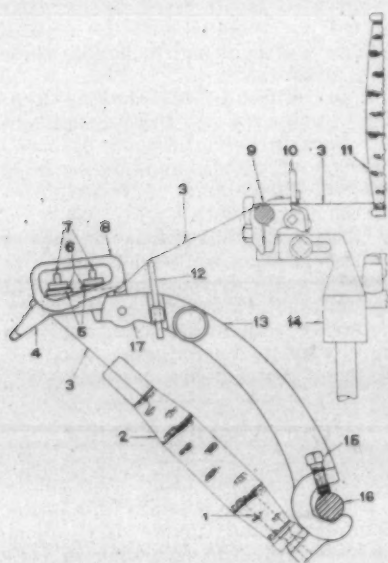
Foster spooler guides have been designed with the idea of eliminating all unnecessary movements in piecing up. This feature reduces spindle stoppage and lowers the cost of filling wind spooling.

The Foster spooler tension guide No. 32 is used in cotton weaving mills and spinning mills making warp yarns.

It will fit any make of spooler and will allow the use of any make of slub-catcher. The attachment combines a pin for holding the spinning bobbin, and a tension.

The chief function of this attachment is to keep the yarn taut while being transferred from the filling-wind bobbin to the speed and to prevent kinks winding on the spool.

The tension feature consists of rotating disc gravity weights which



rest on the yarn and are revolved slowly by the movement of yarn, the tension is applied by gravity and the inertia or dead weight on the yarn is overcome by the use of a yielding substance between the contact disc and tension weights, which also serves as a vibration arrester. Flexibility is thus provided without in any degree changing the positive tension feature. The tension is unchanging until more or less weight is applied which may be done quickly when necessary.

The one supreme vital test of a spooler tension in cotton weaving mills is in handling hard twisted kinky yarn. If kinks get by, filling wind economy is greatly restricted in these mills. The Foster No. 32 spooler guide has been designed to eliminate kinks. It removes any kink that comes from the filling-wind bobbin, or that might form in the ballooning yarn and assures a spool of yarn free from this defect.

A distinctive feature of the No. 32 tension is an arrangement to equalize the natural difference in tension, between extremes of traverse. This secures evenness in density of the yarn wound on the spool, whether the tension is heavy or light. The tension may be changed to make the spool hard or soft as required for different qualities of yarn, and this condition will not vary until the

Technical Description.

The outline drawing shows the position of Model 32 spooler tension on the spooler.

The yarn (3) coming from filling wound spinning bobbin (2) passes through a forked opening (4), under the first and second tensions (5-6-7), and guard (8), then over the traverse equalizing bar (12) and the spooler guide rod (9) through the slub-catcher guide (10) to the spool (11).

The tension is threaded by one movement of the operative's hand carrying the end of yarn from the fork (4) to the spool (11); the guard (8) guiding yarn under the tension.

The tension weights (7) may be changed to suit fine or coarse counts, by loosening cap screw that fastens guard (8) to tension base (17) and swinging guard up.

The tension equalizing bar (12) is adjustable up or down for different lengths of traverse. As the traverse approaches the bottom of the spool (11) and the contact of the yarn on guide rod decreases, the contact of yarn on the equalizing bar increases proportionally. The equalizing bar thus compensates for the natural variation in tension, caused by the up and down motion of the guide rod.

The contact part of the tensions consist of concave, cupped washers (5) resting on the yarn path in the center of a narrow tension base. The yarn passing under washer is engaged first by one and then the other of its rounded edges; the concave design making two contact points on each washer. The function of the resilient washer (6) which is interposed between the contact and weight washers is to receive and absorb vibration and prevent sudden release or sudden application of pressure to the yarn.

The bobbin pins (1) are interchangeable for any size bobbin. The position of the bobbin pin being very accessible, allows for quick replacing of run out bobbins. The tension feature of this attachment is similar to that of No. 33 design.

In "piecing up" an end the operative by an easy natural motion passes the yarn through the tensioning device before tying knot. The end coming from the bobbin is thus held taut preventing the formation of kinks while piecing up.

13. Support for tension and bobbin holder.

14. Guide rod support.

15. Screw to spindle rod.

16. Spindle rod.

Autauga Cotton Mills.

Prattville, Ala.

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SOUTHERN TEXTILE BULLETIN

Member of Audit Bureau of Circulations
Member of Associated Business Papers, Inc.

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THURSDAY, JULY 10, 1924

DAVID CLARK
D. H. HILL, JR.
JUNIUS M. SMITH

Managing Editor
Associate Editor
Business Manager

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Address all communications and make all drafts, checks and money orders payable to Clark Publishing Company, Charlotte, N. C.

Filling Wind on Warp

WE saw a farmer driving to town behind an old gray horse while other farmers flashed by in Fords and other automobiles.

He was traveling in the same manner that farmers traveled before automobiles were invented and was therefore far behind the times.

There are mills still running today with warp wind on warp spinning and they are in exactly the same relative position as farmer plodding along behind his old gray horse.

Five years ago it was not advantageous to spin warp with a filling wind because it was impracticable to spool from filling wind.

Since then a number of tension devices for spooling from filling wind have been invented and it is now easier and cheaper to spool from filling wind than from warp wind.

The farmer with the gray horse will get to town some time and probably get back home safely but he is inefficient and will lose much time.

The mill now spinning warp with warp wind will produce yarn but if they would leave their "old gray horse" and install the filling wind on warp they could make better yarn and more yarn and do so with less cost.

When the spinning runs bad the wise spinner can easily improve the filling side by putting in a few teeth of twist and although the filling frames will still have far less twist than the warp frames they will be running better.

What better evidence of the advantage of the filling wind on warp could be given?

In our "Better Equipment Campaign" this week we are describing the advantages of "Filling Wind on Warp" and describing some of the tension devices.

Unless you are content to jog along on an "old gray horse" it will pay to study this question.

A Letter of Protest

Charlotte, N. C.,
July 8, 1924.

Editor Washington Post,
Washington, D. C.

Dear Sir:

Your editorial of July 5th entitled "Child Labor in Georgia" was very unfair and was evidently based upon erroneous information.

The State of Georgia prohibits the employment of children under 14 years of age in factories and their law is strictly enforced.

The only exception to their law is orphan children or children of widowed mothers entirely dependent upon them may get special permits to work after becoming 12 years of age.

During 1923 only 127 such permits were issued in Georgia and quite a number of the permits were never used.

The Cotton Manufacturers' Association of Georgia, by unanimous vote, requested the 1923 Georgia Legislature to abolish the special permits above mentioned, but the Legislature refused to do so.

Should the Labor Amendment be adopted it would result in less than 127 children being removed from the Georgia mills and the Cotton Manufacturers of Georgia more than a year ago asked their Legislature to remove them.

The Cotton Manufacturers of Georgia are not employing child labor and do not desire to do so, but the people of Georgia objected to yielding police powers, reserved by them when the Union was formed.

They can see no good reason for turning out an efficient State labor department and allowing a Bureau in Washington to supervise their factories.

Governor Lowden, of Illinois, said, "Bureaucracy in Washington is ever alert to increase its powers," and the

truth is that the real force behind the proposed labor amendment is the desire of a Bureau in Washington to secure patronage and appropriations.

The enactment of the Federal Labor Amendment would remove less than 200 children from Southern mills for the very potent reason that child labor does not exist in Southern factories.

The greatest campaign of misrepresentation ever conducted in this country has made the people and even the newspapers believe that children of tender age are slaving out their lives in factories when such is not the case.

Georgia registered a protest against the transfer of their Reserved States Powers to a Washington Bureau and it will be impossible for you or any other impartial investigator to show that the cotton mills or factories of Georgia would be otherwise damaged by the proposed Labor Amendment.

It is not fair to impune the motives of the Georgia Legislature unless you can show that cotton mills and other industries would benefit in a pecuniary way by the defeat of the proposed amendment.

Yours truly,

DAVID CLARK, Editor,
Southern Textile Bulletin.

No Time to Get Bearish

WE wish to caution the cotton mills of the South against getting too bearish upon cotton at this time.

The July 2nd report showed an indicated crop of 12,100,000 bales, and that may be taken as the maximum possibilities of this season.

The June 25th indication coming before the boll weevil damage is always greater than the ultimate yield and there is little chance of a 12,000,000-bale crop.

After the long period of curtailment there will undoubtedly be a demand for cotton goods that will cause a large consumption of cotton and a consumption of more than 12,000,000 bales of American cotton can be confidently expected.

The cotton plant in many sections of the South looks good but is sappy and is very late, and is therefore liable to rapid deterioration from both hot weather and the boll weevil.

During the past ten days our editor had occasion to go to Morehead City, on the coast of North Carolina. He went one way and came back another and drove through 600 miles of cotton country.

Very few blooms were seen and in the eastern part of the State the fields are full of grass.

Judging by our observations we would say that a 750,000-bale crop would be the maximum possible for North Carolina.

A Texas banker and business man who has interests in various parts of Texas tells us that there is little probability that Texas will make as much cotton as last year.

We do not believe that it is possible to raise this year an adequate supply of cotton.

Should a 12,000,000-bale crop be the result it might result in a temporary decline, but the decline would last only a short time, because the farmers of the South will not sell much cotton below 25 cents and they are in a splendid position to hold this year's crop.

One and One

THE Arkansas Legislature, by a vote of 45 to 40 in the Senate and 15 to 13 in the House, has ratified the Federal Labor Amendment. The Georgia Legislature, by a vote of 173 to 3 in the House and 34 to 0 in the Senate has refused to ratify.

The Kansas Legislature has under their State Constitution submitted the question to a vote of the people. The vote therefore stands 1 and 1.

The advocates of the Labor Amendment must obtain 37 States, whereas if 13 States refuse to ratify it will be defeated and the several States will continue to handle their own affairs.

The refusal of the Georgia Legislature to ratify the amendment has been the signal for a widespread newspaper attack upon Georgia in which all manner of false statements were made.

Georgia is pictured as employing little children of tender age and defeating the Labor Amendment in order to continue such employment.

During this entire campaign we may expect a continual flood of falsehoods and misrepresentations.

The Absent Enemy

IN the "American Child," the publication of the National Child Labor Committee and under the above title, we note the following in reference to their recent conference in Washington:

"The National Child Labor Committee had hoped that some of those who are arraying themselves in opposition to the Child Labor Amendment would be present at the conference to give expression to their views and to engage in debate with the amendment's backers — but if any such were there they did not reveal themselves."

This statement is typical of the National Child Labor Committee.

They did not hope for the presence of an opponent nor did they invite any to come.

Had they done so we would have been "among those present."

English Piece Goods Exports.

The export of piece goods from England amounted to 1,877,000,000 yards in the first five months of the year as compared with 1,806,000,000 square yards for the same period of last year. Slowly exports of cotton goods increases year by year. Countries contributing to the increase are India, Germany, Switzerland, Greece and Turkey. Particularly auspicious is the improvement in the Indian trade the all-important market for Lancashire goods.

Personal News

C. H. Cole, president of the Micholas and Opp Mills, Opp, Ala., paid us a visit this week.

L. W. Griggs, of Mobile, Ala., has become overseer carding at the Aponaug Mills, Kosciusko, Miss.

M. T. Petty, formerly of Statesville, N. C., but more recently of LaFayette, Ala., has accepted a position with the Williamson Mills, Charleston, S. C.

Friends of T. J. McNeely, popular superintendent of the Altavista Cotton Mills, Altavista, Va., who has been a confirmed bachelor for some years, will be interested to know that he was recently married to Miss Sallie Davis, of Lynchburg, Va.

J. T. Davis has resigned as assistant superintendent of the Phenix Mills, Kings Mountain, N. C., to become overseer weaving, warping and slashing at the Gambrill-Melville Mills No. 1, and production manager of the Gambrill-Melville Mills No. 2, Kings Mountain, N. C.



E. C. DWELLE, CHARLOTTE, N. C.

President of the Cotton Manufacturers' Association of North Carolina.

S. B. Tanner Dead

S. B. Tanner, one of the leading mill men of the South and a pioneer cotton manufacturer of North Carolina, died at the home of his daughter, Mrs. R. H. Crawford, in Rutherfordton, N. C., last Thursday morning. Mr. Tanner, who was 72 years old, had been in declining health for some time. Funeral services were conducted Friday morning from the Tryon Street Methodist Church, Charlotte. Mr. Tanner made his home in Charlotte for many years, but since the death of his wife several years ago had been making his home in Rutherfordton.

Mr. Tanner was born in Spartanburg County, S. C. After a brief business career in that State, he moved to North Carolina and built the Henrietta Mills at Henrietta and Caroleen. For many years he was actively in charge of these mills, which were very successfully operated under his management. Mr. Tanner was one of the first Southern mill men to appreciate the possibilities of export trade to the Far East markets and his mills built up a tremendous business there.

Besides the Henrietta Mills, Mr. Tanner was connected with a number of other important mill developments. He and his son, Kenneth Tanner, built the mill town of Spindale, where they established the Spindale Mills, Stonecutter Mills, Spencer Mills and a number of smaller plants, including the Horn Mills, Sunlight Mills Company and the Spinners Processing Company. At the time of his death Mr. Tanner was also president of the Cleghorn Mills, Rutherfordton, and the Green River Manufacturing Company, Tuxedo.

For many years Mr. Tanner was actively connected with the work of the American Cotton Manufacturers' Association and served as its president in 1917. As a mill builder and executive, Mr. Tanner was recognized as one of the ablest men in the South, and he will be remembered for the contribution he made to textile development in North Carolina.

Mr. Tanner is survived by two sons, K. S. Tanner, of Rutherfordton, and S. B. Tanner, Jr., of Charlotte, and one daughter, Mrs. R. H. Crawford, of Rutherfordton, one brother, A. S. Tanner, of Rutherfordton, and five sisters.

For Sale

48—40" Modified "D" Draper Looms. Latest model, used less than 3 years. Equipped with $\frac{3}{4}$ H. P. individual motors.

250—32" "E" Model Draper Looms. Batteries for 28 8" Bobbins. Roper let-off motions. Auxiliary shafts for 3 and 4-harness cams.

An unusual bargain for immediate sale.

SOUTHERN TEXTILE MACHINERY COMPANY

Greenville, S. C.

Bobbins and Spools

True-running Warp Bobbins a Specialty

The Dana S. Courtney Co.
Chicopee, Mass.

A. B. CARTER, Southern Agt, Gastonia, N. C.

Improved Loom Harness

Mill after mill on print cloths, sheetings, drills, colored goods, denims, as well as on all classes of fancy weaves in cotton, silk and worsted goods, is equipping looms with our "Duplex" flat steel harness.

YES? WHY?

"Duplex" lasts twelve times as long as twine harness, can be changed more quickly from one cloth to another, and is more satisfactory in every way than any other loom harness known.

Note: Our loom harness is shipped out completely assembled and ready for drawing your warps in plain or fancy weaves, or heddles can be assembled by you on the frames at your mill.

STEEL HEDDLE MFG. CO.

GREENVILLE

PHILADELPHIA

PROVIDENCE

"Duplex" Loom
Harness—complete
Frames and
Heddles fully
assembled

Salvage Harness
Leno Doups
Harness Frames
Jacquard Heddles

SOUTHERN PLANT

Greenville, S. C.

HAMPTON SMITH
Southern Manager

Drop Wires
Nickel-Plated
Copper-Plated
Plain Finish
Improved
Loom Reeds
Leno Reeds
Leno Reeds
Combs

MILL NEWS ITEMS OF INTEREST

Newberry, S. C.—The Newberry Cotton Mills have paid a semi-annual dividend of 3 per cent.

Rock Hill, S. C.—The Aragon Mills have paid a quarterly dividend of 2 per cent on the cotton stock and 1 per cent on the preferred.

Landis, N. C.—The Linn Mills have begun construction of an addition preparatory to installing additional carding machinery.

Norwood, N. C.—The Norwood Manufacturing Company is installing some additional card room equipment.

Anderson, S. C.—The Equinox Mills, which have been curtailing for some time, resumed full time operations this week.

Newberry, S. C.—The Mollohon Mills have paid a semi-annual dividend of 3 per cent.

Newberry, S. C.—The Oakland Mills have paid a semi-annual dividend of 3 per cent.

Anderson, S. C.—The Riverside plant of the Riverside and Toxaway Mills, which was badly damaged by a tornado in April, is expected to be ready for operations again by the first of September.

Wadesboro, N. C.—The new Wade Manufacturing Company is practically complete and will be put into operation next week. The mill, which will manufacture flannels, is one of the best equipped in the South. I. B. Covington is general manager.

Whitehall, Ga.—The White interests, represented by James White, Hugh White and Robert P. White, will erect a new weave shed here and install 110 looms for the manufacture of crinkle bedspreads. The plant will include bleaching and dye works and will cost about \$250,000.

Gibsonville, N. C.—Contract for the erection of a weave shed for the Mineola Manufacturing Company, of Gibsonville, N. C., has been let to W. M. Welch, Inc., of Greenville. The project will represent a cost of approximately \$105,000. Work will begin in the near future and will be rushed to completion. Plans for the building were drawn in the office of J. E. Serrine & Co., of Greenville, S. C.

Greenville, S. C.—Machinery is arriving for the Southern Weaving Company, which was formed here some time ago to manufacture cotton specialties. It is expected that partial operations will be begun early in August. Twenty-two looms will be installed to begin with, with carding and spinning machinery. F. D. Murdock is president and J. W. Burnett, treasurer.

Lincolnton, N. C.—The new Rhodes-Rhyne Cotton Mill began operating the first of this week and will be running at full capacity in another week or two. The mill will make yarns and also sheets and bedspreads.

High Point, N. C.—A new hosiery mill company, known as the Earle-Dempsey Hosiery Company, has been incorporated here with a capital stock of \$100,000 by T. B. Earle, High Point, and A. F. Dempsey, 609 West avenue, Baltimore, Md.

Lyman, S. C.—The first carload lot of piece goods finished in the new bleachery of the Pacific Mills was shipped to Chicago last week. The shipment comprised about 100,000 yards of bleached goods. Getting the first carload packed and rolling was quite an event at Lyman. The goods were packed in cases and placed in the car within the space of two hours, considered good time for the initial experience.

Mobile, Ala.—The plant of the Prichard Cotton Mills, which is idle at this time, is being offered for sale by the owner, B. H. Pake. It has 56 looms for the manufacture of colored napped goods and damask.

Gaffney, S. C.—The plant of the Gaffney Knitting Mills was destroyed by fire last Saturday morning. According to G. G. Byers, president of the organization, the loss was more than \$60,000, and the insurance on the stock is about \$30,000.

LaGrange, Ga.—Arthur D. Bradfield, civil engineer and textile contractor, of this city, has been awarded the contract by Lockwood, Greene & Co., Atlanta, for construction of the water works and sewerage system to be installed at the American Thread Company's new plant at Dalton, Ga. This contract will aggregate an expenditure of \$35,000 and the work is to be pushed to completion as rapidly as possible.

Mr. Bradfield installed and constructed a similar piece of work for the New England-Southern Mills, at Hogansville, Ga., last year.

Tuscaloosa, Ala.—The building of the Kyle Hosiery Mills has been completed and practically all machinery installed. Operations will probably be started this week. The plant has 110 knitting machines, 24 loopers and two sewing machines, electrically operated. R. C. Davis is president and W. C. Kyle, treasurer.

Browning Green, S. C.—The Bowling Green Spinning Mill has not been closed indefinitely, as reported through error last week. This mill has run full time through the textile depression, having lost only one week's operations, and was closed then only to give the operatives a vacation.

Augusta, Ga.—Local mill executives are preparing for a shutdown for four to eight weeks, evidently, as those mills here that have stopped cut loose their entire organization with the exception of a few members of their office force and executives. In this city approximately 483,240 spindles are stopped, and a capital of \$3,100,000 is tied up, or a condition which never before has existed since the plants were organized. With curtailment reported from all sides this week, those plants which are still running seem to be looking for refuge, and will probably look to that which was set aside for "the rainy day."

Gaffney Knitting Mill Burned

Gaffney, S. C.—The plant of the Gaffney Knitting Mills was destroyed by fire last Saturday morning. According to G. G. Byers, president of the organization, the loss was more than \$60,000, and the insurance on the stock is about \$30,000. No theory has been advanced as to the origin of the fire, as the plant had been shut down for several days. The stock of manufactured goods and materials on hand was the largest in the history of the concern, as it was preparing for a large fall trade.

The building was the property of Huggin Bros., who estimated their loss at about \$3,000, with \$2,000 insurance.

When asked as to the future plans of the concern, Mr. Byers stated that nothing would be decided upon until the insurance was adjusted. Up to the time of the present business depression the concern was making money and prospects for a good fall trade were exceedingly bright.

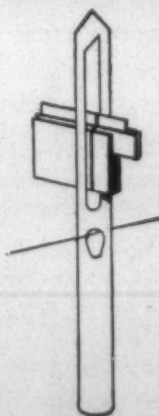
Gaffney Knitting Mills were capitalized at \$25,000. The production and equipment were women's and men's hose, 176 and 200 needles, 54 knitting machines.

THE FARISH COMPANY

COMMISSION MERCHANTS

100 WORTH STREET

NEW YORK



K-A Electrical Warp Stop For Looms

is backed by twenty years of experience and steady growth. It is adopted by representative mills weaving cotton, silk, worsted and woolsens.

R. I. Warp Stop Equipment Co.

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ATLANTA, GA.

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Town Planning and Mill Village Developments
Parks, Real Estate Subdivisions and Cemeteries
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Private Estates and Home Grounds

Complete Topographic Surveys
General Designs, Planting, Grading and Detail Plans
Supervision of Landscape and Engineering Construction
Sewer and Water Development

Largest Landscape Organization in the South

Many Textile Plants in East Resume Work

Springfield, Mass.—More than 20,000 operatives in the Connecticut Valley have resumed work in textile and other manufacturing plants after shutdowns varying from two to six weeks. Mills that have resumed operations include: Holyoke, Mass., William Skinner & Sons, silk mills; American Thread Company; American Writing Paper Company; Farr Apalca Company. Springfield, Mass., American Bosch Magneto Company. Northampton, Mass., Belding Silk Mills, Thompsonville, Conn., Bigelow-Hartford Carpet Company, Ludlow, Mass., Ludlow Manufacturing Association.

Fort Mill Co. Gives Annual Picnic

Fort Mill, S. C.—The annual picnic of the officers and employees of the Fort Mill Manufacturing Company, which was enjoyed by a large number of townspeople, and visitors from Chester, Rock Hill, Charlotte and Gastonia, was a decided success, and between 1,200 and 1,500 people participated at times throughout the day. The usual contests, with a number of novel ones introduced, furnished pleasurable excitement especially for the younger folks, and there were short talks by the Rev. Long, Capt. Elliott Springs and George Fish.

Three games of baseball were played during the day, the principal event being between the Fort Mill and Waxhaw teams late in the afternoon, which resulted in the score of 15 to 0 in favor of the Fort Mill team. At 1 o'clock a barbecue and basket picnic was served in the grove near the old academy. The day was partly cloudy with cooling breezes, which made it an ideal day for the occasion.

Mr. Fish presented the babies from four to ten years of Fort Mill with a nice sum of money, which was saved through the cold drink stand of the two mills.

Hosiery Production in July

Washington, D. C.—There was a total of 4,252,341 dozen pairs of hosiery, all classes, manufactured during the month of May, 1924, according to returns received by the Bureau of Census, Department of Commerce, covering 338 establishments representing 430 mills, the

details of which were made public recently.

A comparative summary of production for April and May, based on data received from 337 establishments, indicates a decrease of approximately 160,000 dozen pairs of hosiery, all kinds, manufactured during May as compared with April, this year.

Of the total production during May, there were 67,297 dozen pairs of men's full fashioned, 1,588,555 dozen pairs men's seamless; 619,416 dozen pairs women's full fashioned, 1,076,120 dozen pairs women's seam-

less; 460,517 dozen pairs boys' and misses', all styles; 420,238 dozen pairs children's and infants', all styles; and 20,198 dozen pairs athletic and sport, all styles.

Orders and stocks, as reported for the month of May, were as follows: Shipments during month, 4,043,234 dozen pairs; finished product on hand at end of month, 8,816,968 dozen pairs; orders booked during month, 3,376,022 dozen pairs; cancellations received during month, 218,758 dozen pairs; unfilled orders on hand at end of month, 6,422,928 dozen pairs.

Textile Employment Shows Drop

Washington, D. C.—Employment in manufacturing industries in the United States decreased 4.2 per cent in May, payroll totals 5.1 per cent, and per capita earnings 1 per cent, according to statistics compiled at the Department of Labor based on reports from 8,569 establishments, representing 52 industries and employing 2,604,259 workers, whose total earnings during one week inlay were \$68,078,862.

The average decrease in payroll totals in textiles and their products was 6 per cent, the decreases for the various lines being as follows: Cotton goods, 6.7 per cent; hosiery and knit goods, 6.3 per cent; silk goods, 4.3 per cent; woolen and worsted goods, 2.8 per cent; carpets 9.8 per cent; dyeing and finishing textiles, 4.5 per cent; men's clothing, 3.7 per cent; shirts and collars, 5.6 per cent; women's clothing, 18.3 per cent; and millinery and lace goods, 7.9 per cent.

The actual decline in employment during May, 1924, as compared with May, 1923, for the various branches of the textile industry on which statistics are compiled was as follows: Cotton goods, 31.3 per cent; hosiery and knit goods, 13.3 per cent; silk goods, 12.9 per cent; woolen and worsted goods, 21.9 per cent; carpets, 15.8 per cent; dyeing and finishing textiles, 16.2 per cent; men's clothing, 29.7 per cent; shirts and collars, 18.2 per cent; women's clothing, 11.5 per cent; and millinery and lace goods, 8.3 per cent.

LOOM STRAPPING

Check Straps--

Lugs,

folded and stitched, cemented--

Rounded and flat

Harness Straps--

Bumpers--

Hold-ups--

Binder Straps--

Power Straps--

Friction Discs--

We specialize and know your looms.

Ask your jobber.

The Druid Oak Belting Co., Inc.

Baltimore—Boston

THE TRIPOD PAINT COMPANY

—MANUFACTURERS—

ATLANTA GEORGIA

MILL WHITES, PAINTS, STAINS, Etc.

Write for Prices and Free Samples

EMMONS LOOM HARNESS COMPANY

The Largest Manufacturers of Loom Harness and Reeds in America

Loom Harness and Reeds

Slasher and Striking Combs, Warps and Leice Reeds,

Beamer and Dresser Hecks, Mending Eyes, Jacquard

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LAWRENCE, MASS.

Joseph L. Davidson Co.

Established 1889

Designing Card Stamping Repeating
FOR ALL TEXTILE FABRICS

2525 N. Second St., Philadelphia, Pa.

Improved Dobby Chain



Dobby Cords



Rice Dobby Chain Co.

Millbury, Mass.

Send Us Your Order Today

THE CHOICE OF A HUMIDIFYING SYSTEM

must be one that for simplicity with great capacity and economy in maintenance produces uniformly such conditions that may be determined for the different requirements of the work. In the American Moistening Company's method of humidifying, all such requirements are GUARANTEED

Our COMINS SECTIONAL HUMIDIFIERS

Our FAN TYPE and HIGH DUTY HUMIDIFIERS

Our VENTILATING Type of Humidifier (Taking fresh air into the room from outside)

Our ATOMIZERS or COMPRESSED AIR SYSTEM

Our COMPRESSED AIR CLEANING SYSTEM

Our CONDITIONING ROOM EQUIPMENT

Our AUTOMATIC HUMIDITY CONTROL (Can be applied to systems already installed)

Our AUTOMATIC TEMPERATURE CONTROL

Are all STANDARDS OF MODERN TEXTILE MILL EQUIPMENTS

AMERICAN MOISTENING COMPANY

RUSSELL GRINNELL, President

BOSTON, MASS.

FRANK B. COMINS, General Manager

SOUTHERN OFFICES, 276 Marietta St., Atlanta, Ga., No. Charlotte, N. C.

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OFFICES:
110 East 42nd St.
(New Bowery Savings Bank
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New York City

EXPORTERS—MANUFACTURERS—IMPORTERS

WORKS:

Brooklyn, N. Y.
Cicero, Ill.
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of any kind of Preparations for

SIZING

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for all Textile Purposes

Sizing Preparations, Tallows, Filling Materials, Printing and Stiffening Gums, Rosin Soaps,
Dextrines, Soluble Oils, 50%-75% Guaranteed

Boil-Off Oil

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Many years' practical experience of our technical staff enables us to meet all your requirements. Our Textile Research Laboratories are at your disposal. Your correspondence and trial orders are solicited.



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Southern Agent: Cameron McRae, Concord, N. C.

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MANUFACTURING COMPANY
BOBBINS

MONTICELLO, GEORGIA

MILLS AT
MONTICELLO GA.
AND TOECANE, N.C.

SCOTT TESTERS

The Standard of The World For Tests of Fabrics,
Yarns, Twines, Etc.

HENRY L. SCOTT & CO.

Catalog on Request

PROVIDENCE, R. I.

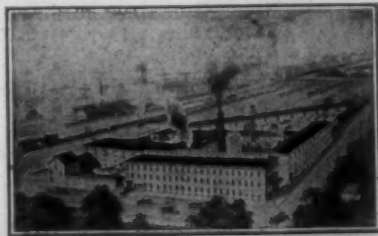
Manufacturers of Speeders,
Skewers, Warp Bobbins, Filling
Bobbins, Cap Spinning Bobbins,
Northrop Loom Bobbins, Twist-
er Bobbins, Twister Spools,
Warper Spools, Comber Rolls,
Quills, Underclearer Rolls (plain
or covered).

U S Bobbin & Shuttle Co.

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SHUTTLES

We make a specialty of
Shuttles for all makes of looms,
both plain and automatic.
Correspondence solicited.



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THE DAVID BROWN COMPANY
Lawrence, Mass.

All Our Products Made in One Up-to-the-Minute Factory Group

"HIGH GRADE"

Bobbins, Spools and Shuttles

Correspondence Solicited

Catalog on Request

Improvements in Spinning Frames

(Continued from Page 17)

wise manufacturer is doing the same thing, and the best cotton mills are replacing their old equipment, and a spinner at no increase in wages, with new equipment can easily produce 10 per cent more, and this 10 per cent is a decided advantage in both good times and bad times.

How Photography Is Used in Textile Manufacturing

By Harry Rose, Cotton Research Co., published in "Builders."

WHEN we first began to make photographs and were in reality learning how to do it, we began by photographing about everything in sight that had any bearing on cotton and its manufacture. These photographs were carefully filed away and with the passing of time their usefulness has been demonstrated time and again. We have often had occasion to refer to them, not only to refresh our memory on some of our early work, but also to make comparisons with present work. For instance, how many mill men remember what the yarn which their mill produced six months or a year ago looks like? Of course, they blackboarded samples of it at the time and looked it over carefully and made mental or written note of its cleanliness, evenness, or fuzziness, but how vivid a picture is that memory at present? How does the present product compare with that earlier yarn? The mental or written note cannot answer satisfactorily these questions. Such questions can only be answered satisfactorily by comparing the actual samples themselves, or the next best thing, by comparing standard photographs of the various samples.

The various types of photographs which we have made are more or less familiar to most of the members of the organization, as our reports on different tests generally contain one or more photographs of charts, curves, machines, yarn, cloth, or what not. Therefore, it is unnecessary to review at length the above classification. I will, however, mention briefly what is embraced in each class of photographs.

1. Cleanliness of Raw Cotton. We have made photographs of small samples of raw cotton preliminary to making a test. Later, these photographs were filed with the best results showing the cleanliness of the cotton we started with. This was particularly helpful in some of our earlier cotton tests when we made a comparison of the running qualities of various kinds of cotton.

2. Evenness of Picker Laps. During our tests on the efficiency of the various types of beaters, and comparison of their effects on the cotton staple, we made many pictures of the fringe of cotton on the feed roll of the pickers and also photographed sections of a picker lap. This was done in an unique way. The surface was not photographed, but the lap was laid on a

piece of ground glass which was illuminated from below. Thus we got a picture of the arrangement of the fibres by transmitted light. It showed clearly the difference in evenness of laps made by the various types of beaters.

3. Evenness of Yarn. I have briefly mentioned previously that photographs of blackboarded samples of yarn are valuable chiefly for purposes of filing and recording. The product of a mill can from time to time be boarded and photographed. Photographs of blackboards are as good as the original boards for observation purposes, and the advantages of a photograph over the board itself for filing purposes are too obvious to dwell upon in detail.

4. Cleanliness of Card Web. This sort of photograph can of course only be made very close to the scene of operation of the card. We succeeded in catching some of the web on a blackboard and photographs of various samples gave us a good idea of the efficiency of the card in cleaning the cotton.

5. New Devices. Many new devices have been made from time to time at the Cotton Research Company. These were photographed in various stages of construction and operation, and these photographs serve as a record of progress in our lines.

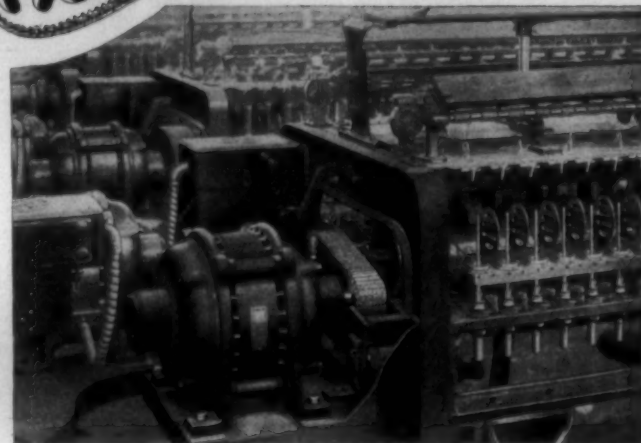
6. Unusual Conditions or Attachments on Machinery. Whenever we discover anything out of the ordinary or unusual pertaining to the running or operation of a machine, a photograph is generally made and filed away for future reference. Many times we have occasion to refer back to it, and it is always at hand for this purpose. Then, too, many manufacturers of new devices or attachments to present machines bring them to our laboratory for testing out. In such cases, photographs are generally made to accompany reports.

7. Method of Performing Operations. Sometimes it happens that a given operation can be performed most efficiently in a certain way. A series of photographs of the various steps in doing this have been made for educational purposes. This is one class of photographs which might be made particularly useful to a mill. Would it not be possible to educate the operatives as to the correct and incorrect methods of performing certain operations? A photograph can certainly teach this much better than oral or printed instructions, and is constantly before the worker.

8. Charts and Curves for Records. A vast amount of our work is contained in charts and curves of results. Most of these are photographed in order to have a ready means of sending out copies and also for uniformity in filing, as it is better to file uniform pictures than originals of all sizes and shapes.

9. Educational. Under this heading I include lantern slides. We have all the necessary equipment for making lantern slides and for showing them. With our portable projection machine we can make illustrated talks on various topics connected with cotton manufacturing.

MORSE SILENT CHAIN DRIVES



7-1-2 H. P. Morse Silent Chain driving spinning frames in a southern mill. Driven 1750 R. P. M., driven 1250 R. P. M., centers 8-1-2 inches

Improves Yarn Quality

Morse Silent Chain Drives transmit 98.6% of the motor horsepower developed with constant and positive speed ratios. Improve the quality of the yarn by eliminating pulsating yarn at the traveler—a common cause of broken yarn when belts with their varying speeds are used. Morse Chains also prevent loss due to fly and dirt from pulleys and belts getting into the work. Cleaner yarn is produced and customers better satisfied.

Let Morse Engineers help you.

MORSE CHAIN COMPANY
Ithaca, N. Y.



AMERICAN TRUST CO.

BOND DEPARTMENT

Specializes in Textile Corporation Finance.
Negotiates purchase and sale of Cotton Mills.
Offers conservative investments in Textile preferred stocks to yield from 6 1-2 to 7 1-2 per cent.

BOND DEPARTMENT

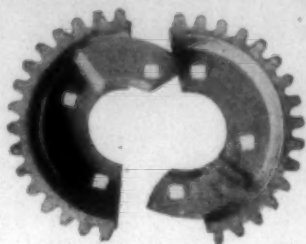
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"Warp Dressing Service
Improves Weaving"

NORFOLK VIRGINIA



**THIS 2-PIECE GEAR
CAN BE APPLIED
IN THIRTY MINUTES**

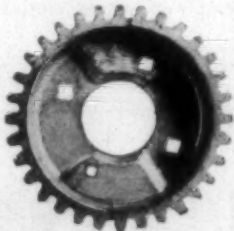
to any loom to replace a broken crank shaft gear. Saves material and time and also increases production.

Not a temporary makeshift but a permanent satisfactory repair part.

Write for sample.

Dan Gear Co.

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Save in freight by using

W I L T S

Veneer Packing Cases

They are lighter and stronger, made of perfect 3-ply Veneer Packing Case Shooks. A saving of 20 to 80 pounds in freight on every shipment because of extreme lightness. Stronger than inch boards, burglarproof, waterproof and clean. Write for prices and samples. Convincing prices—Quick service. Wilts Veneer Co., Richmond, Va.

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FOR MORE THAN FIFTY YEARS

SPINNING RINGS
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DIAMOND FINISH
TRAVELLER CLEANERS
TRAVELLER CUPS
GUIDE WIRE SETS

WHITINSVILLE
SPINNING RING CO.
WHITINSVILLE, MASS.

Southern Mill Dividends

(Continued from Page 10)

Dallas Mfg. Co., 3 per cent; \$1,500,000 common, \$45,000.
Enterprise Mfg. Co., 1½ per cent quarterly; \$500,000 common, \$7,500.
Eford Mfg. Co., 5 per cent, \$1,500,000 common, \$75,000.
Elizabeth City Cotton Mills, 2 per cent; \$300,000 common, \$6,000.
Elm City Cotton Mills, 3 per cent quarterly; \$315,000 common, \$9,468.
Erwin Cotton Mills Co., 1½ per cent quarterly, \$2,000,000 common, \$30,000.
Fitzgerald Cotton Mills, 5 per cent; \$300,000 common, \$15,000.
Fulton Bag & Cotton Mills, 3½ per cent; \$841,300 preferred, \$29,445.50.
Georgia-Kincaid Mills, 4 per cent; \$600,000 common, \$24,000.
Georgia-Kincaid Mills, 3½ per cent; \$1,300,000 preferred, \$45,500.
Halifax Cotton Mills, 4 per cent; \$170,000 preferred, \$6,800.
Hannah Picket Mills, 5 per cent; \$200,000 common, \$10,000.
Hannah Pickett Mills, 3½ per cent; \$500,000 preferred, \$17,500.
Indian Head Mills of Alabama, 5 per cent; \$600,000 common, \$30,000.
Locke Cotton Mills, 4 per cent; \$500,000 preferred, \$20,000.
Louisville Cotton Mills, 4 per cent; \$600,000 common, \$24,000.
Manchester Cotton Mills, 3 per cent, \$500,000 common, \$15,000.
Marion Mfg. Co., 1 per cent; \$625,000 common, \$6,350.
Milstead Mfg. Co., 3 per cent quarterly; \$250,000 common, \$7,500.
Muskogee Mfg. Co., 8 per cent; \$500,000 common, \$40,000.
Myers Mills, 3½ per cent; \$200,000 preferred, \$7,000.
Norwood Mfg. Co., 2 per cent quarterly; \$600,000 common, \$12,000.
Patterson Mfg. Co., 2½ per cent quarterly; \$420,000 common, \$10,500.
Perfection Spinning Co., 3½ per cent; \$100,000 preferred, \$3,500.
Pinkney Mills, 2 per cent quarterly; \$100,000 preferred, \$2,000.
Riverside & Dan River Cotton Mills, 3 per cent; \$7,500,000 common, \$225,000.
Roswell Mfg. Co., 2 per cent quarterly, \$225,000 preferred, \$4,500.
Sibley Mfg. Co., 1½ per cent quarterly; \$900,000 common, \$13,500.
Wiscasset Mills, 5 per cent; \$3,600,000 common, \$180,000.
Unity Cotton Mills, 1½ per cent quarterly; \$250,700 common, \$3,760.50.

Specking Knitted Fabrics.

(Continued from Page 16)

ble fiber and leave the batch containing animal fiber only. The weight of the batch will be reduced to the extent of the proportion of vegetable fiber it originally contained, but the salvaged portion will be all animal fiber and can be used as such.

The animal fiber is extracted from the vegetable fiber and hence the name extracts for the former. In carbonizing with sulphuric acid the material for treatment is placed in a tank in which the bath is made with a diluted solution of the acid at 3 degrees B. in strength. The rags chemicals will destroy the vegeta-

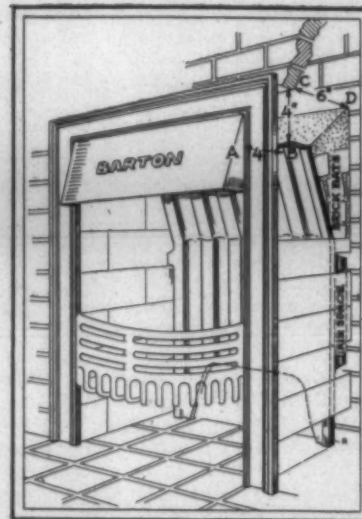
are allowed to soak ten or twelve hours, during which time the mass is stirred occasionally. The material is then drained off and put in a hot air chamber where a temperature of 170 to 180 degrees Fahrenheit is maintained. With the absorption of the moisture in the stock the sulphuric acid acts and draws the hydrogen and oxygen properties from all vegetable matter present. This leaves the carbon properties only. Raw material in which it is required that all vegetable substances be removed is similarly treated. Hence burrs, pieces of straw and kindred matter which later on would appear in the form of specks in the goods are effectively removed for all time. In many mills the process is referred to as a burring operation.

After the stock is taken from the drying chamber it must be treated to remove the carbon which exists in a very concentrated form on the staple. By taking some of the treated material in the hand and rubbing it, the carbonized vegetable matter will crumble and powder and fall away leaving the animal fiber intact. The material is run through a burring machine which breaks and scatters much of the carbonized substance after which it is passed through a carding machine alone or mixed with other fiber. A fiber is obtained which is free of all vegetable substance, although it may not possess the same degree of elasticity and fullness of fiber which has not been put through the carbonizing process.

If the carbonized staple is used in mixes with other grades which have not been carbonized, specking will be required in the finishing room in order to clear the goods of objectional substances which may have been carried along in the staple of the latter stock. If the speck is of such nature that it cannot be removed without detrimentally affecting the texture, it is possible to color it so that it will not be shown. A specking outfit intended for use with colored inks is shown in Figure 4. Colored India drawing inks are more solid in their shades than ordinary writing fluid, although regular specking ink is often made by the dyer of the mill. It is really a specking dye, but is usually called ink. The specking girl should be a good judge of colors, otherwise she may get the covering color too dark and injure the goods by its prominence over the ground color. Again she may be careless with the point of the instrument used for specking.

The writer saw one girl picking and scratching away on a speck in a piece of fine knitted goods with a stiff pointed quill pen such as is shown in the drawing. The nap of the goods in proximity to the speck was disturbed by the girl's effort to cover the defect by scratching up a pile. In another case a common steel pen was in use which is about as bad in its effect on delicate textures in the hands of a careless specker. The camel hair brush is soft enough and little damage can be done with it even in careless hands. But the camel hair brush or

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is proof that they do the work.

Ask your supply man



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Wyandotte, Mich.

any other hair brush is not suitable for specking all ranges of specks. The toe of wooden specker shown in the lower part of the drawing can be recommended. It is about five inches long, little smaller in diameter than an ordinary pencil and shaved down to a point.

The specking ink can be placed readily with this little instrument and without liability of doing any damage as might be the case in using a sharp metal point. It is on the principle of the wooden tooth pick which will not hurt the teeth, whereas the old fashioned quill and metal tooth picks used to do considerable damage to teeth.

From the specking department the goods pass to the calendaring operation which will be considered next.

Report on World's Cotton Supply

Washington, D. C.—Prices of raw cotton have stimulated efforts to increase production of the staple in foreign countries, according to a survey of world cotton conditions which appears in the current issue of Foreign Crops and Markets, issued by the Bureau of Agricultural Economics of the Department of Agriculture.

Should the present price level continue, the prospects are for a considerable increase in foreign acreage devoted to the crop within the next two or three years, the department asserts, but serious competition with cotton raised in the United States is regarded as more remote.

The department has revised its estimated cotton production for the last season, that of 1923-1924, by reducing it 200,000 bales, making its present estimate of world production last season about 18,900,000 bales of 478 pounds each.

The report gives various details for the more important of the foreign cotton-growing countries. In its summary of the cotton situation, the department says:

"Estimates of the 1923-1924 cotton production for minor producing areas continue to come in slowly. The Indian estimate has been slightly revised, otherwise the crop in the major producing countries remains the same as reported in our last summary of April 16. Information received from other sections indicating a somewhat smaller production causes us to reduce our estimated world production for 1923-1924 about 200,000 bales.

"It now appears that the world production was about 18,900,000 bales of 478 pounds net.

"Total exports for the 11 months beginning July, 1923, have been about 600,000 bales more than for the corresponding period last year.

"Imports have been considerably less, and re-exports slightly more, so that the total excess of exports over imports for the 11 months' period under review are about 800,000 bales in excess of the preceding year.

"Total exports for the 11 months' period beginning July 1, 1923, were 5,668,000 bales, compared with 5,-

031,000 bales of the corresponding period last year. The export movement shot ahead during the first part of the season, due to early purchases by European importers.

"There was some slack in this movement later in the season, but for the month of May, 1924, exports were almost double those for the same month in 1923.

"The increase in the export movement during the past season has been due almost entirely to English and Continental European demand. The United Kingdom imported during the 11-month period under review nearly 300,000 bales more American cotton than for the corresponding period last year. Germany imported nearly 400,000 bales more. Slight decreases are shown in the exports to Italy, Spain and Belgium. A few thousand bales more cotton were exported to China, but with this exception, demand for American cotton outside of Europe has been somewhat less than the preceding year.

"Prices of cotton this season have been subject to wide and frequent fluctuations, the extreme in some cases differing as much as 15 cents per pound. The relatively high level of prices this season is stimulating considerable effort to increase production in foreign countries.

"A 10 per cent increase over last year's acreage is expected in Egypt. This would mean an area of 1,800,000 acres for the 1924-1925 crop.

"In Africa the regions most talked of for increased cotton production are the Anglo-Egyptian Sudan and Uganda. Some place the potential acreage in the Anglo-Egyptian Sudan at 1,000,000 acres, and for Uganda, together with Kenya Colony and Tanganyika, at about 1,250,000 acres. Much of this area, particularly in Uganda and the Sudan, will require irrigation, and there is some question whether the fountain waters of the Nile will be sufficient without decreasing the supply for Upper and Lower Egypt.

"Australia has shown a large increase in cotton production during the past few years, but the total is still only a few thousand bales.

"In South America, Brazil is the most talked of cotton producing country. Present production in Brazil greatly exceeds that in Argentina, but the potential areas are largely located in the interior river valleys, where agriculture is most primitive and transportation facilities poorest.

"In Argentina, the potential area suitable to cotton growing without irrigation has been estimated at some 14,000,000 acres, most of which is within easy distance of railway or river transportation. The inadequate seasonal labor supply, lack of gins, high freight rates, and the presence of insect pests are all drawbacks to cotton growing in Argentina.

"Extensive areas in the provinces of Sind and Punjab, India, are suitable to cotton production when properly irrigated. Because of dense population, food crops compete with cotton, with the price of the latter a large factor in determining to what crop the acreage will be planted.



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SUPERINTENDENTS AND OVERSEERS.

We wish to obtain a complete list of the superintendents and overseers of every cotton mill in the South. Please fill in the enclosed blank and send it to us.

1923

Name of Mill _____

Town _____

Spinning Spindles _____ Looms _____

Superintendent _____

Carder _____

Spinner _____

Weaver _____

Cloth Room _____

Dyer _____

Master Mechanic _____

Recent changes _____

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WRITE FOR SAMPLES

Number Seventeen

(Continued from Page 41)

(Get a size man to tell what kind compound they use.)

In the weave room they have modern looms and if more than two looms are stopped at a time on a weaver they send for the master mechanic, find out if power is off.

In the cloth room they have stitchers, brushes, folders and press. All cloth is hand inspected.

Looking over the production and cost sheets of these two mills you find the answer. The better equipped mill has 12 per cent better production, 7 per cent less seconds, over 8 per cent lower cost, while paying 12½ per cent higher wages. Tobe.

Why The Textile Business Is Bad

VARIOUS and sundry explanations have been advanced to explain the depression in the textile trades. Much has been written and said about the effects of high cotton and low tariff, and overproduction. To these New England has added the cry of Southern competition.

The following article cites several causes of the depression. It is reprinted from "Builders," published by Lockwood, Greene & Co., and any mill man will find it interesting, especially the last paragraph.—Editor.

"The comparative idleness of our cotton factories is no doubt a lamentable prospect, but it would be unjust to charge this result to the general government and the tariff alone. The advances in the price of the raw material consequent upon the rapidly increasing demand and the partial failure of the crop has as much a tendency to produce this effect as the policy of the government. A high tariff would not have prevented the partial stoppage of our factories. The depression of the trade from the above cause is after all not so sensibly felt. This may be deducted from the following tables showing the number of spindles in the mills of New England States and the proportion of spindles remaining idle. . . .

"This proves about one-third of the whole number of spindles to be idle. . . .

"A great number of very important petitions are daily presented to Congress for alteration in the existing tariff which may effect some change favorable to the manufacture of cotton goods. . . .

"From Rhode Island, that busy cotton cloth-making hive, we learn that about 70 factories have closed. From Lowell and our eastern manufacturing villages we hear the same ominous report. . . .

"Even from the Sunny South we hear of depression and suspension of manufacturing operations. From East, West, North and South the times are bad, the cotton manufacturers say, and they say so truly. The important question in such a case is, what is the cause?

"One says a higher tariff is wanted, another says it is owing to the high price of cotton, and a few among the great many say it is

owing to manufacturing too many coarse grades. The first question is a political one, and we will therefore not discuss it. The other two are so entwined together that we must and readily can establish their truth or falsity. If the demand for cotton cloth was equal to the supply, the high price of cotton would be paid by the consumer, for if cloth must be had it makes no matter whether its price be one shilling or one sixpence.

"There is every reason to believe that the supply has been greater than the demand, for the coarse cotton manufacturers of Britain have long been in a depressed state, the exports being less for the last two quarters in every kind of cotton manufacturing, and taking this into consideration along with the great number of our factories which have done but little for the past six months, we should have expected some clearance of goods in the markets and a respectable advance in the prices to meet the corresponding high price of cotton; but no such appearance of demand for goods is manifested, or rather, the markets are as glut-full of cheap goods as ever. The merchants always like to sell cheap. They care not for the manufacturers' interests, only give them cheap goods to sell. It is a commercial fact, too, that when prices are once lowered to a fixed standard for some time, it is almost impossible to elevate them above it, however great the necessity may be for doing so.

"It is our opinion that there have been too many of our factories engaged in making coarse cotton goods. At the North, this is self-evident, for coarse goods can be manufactured cheaper at the South, and with the great number of factories now in operation in Georgia, Alabama, Tennessee, South Carolina and some other States, how can it be expected that our Northern manufacturers keep the field against them—they cannot do it.

"Leaving the political question out of sight, there is one remedy that we would suggest, and that is to go into the manufacture of finer fabrics, give your cotton more labor, employ more skill, and spend more for finer machinery. If you do not take our advice, there is a brave chance for you to lose all your machinery, factories and all."

When do you suppose the above was written? Not the day before yesterday, but in 1850, by Robert H. Baird, and published in the "American Cotton Spinner" in 1856 by Phillips, Sampson & Co. The fact that it was written over 70 years ago is of course the principal item of interest.


Maginnis Mills. New Orleans, La.

37,648 spinning spindles; 1,000 looms.	
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Joseph Lalla	Weaver
Walter E. Charles	
	Cloth Room and Finishing
George Paxton	Dyer
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Over 70% of the cotton spindles of the United States and Canada are insured in the New England Factory Mutual Insurance Companies. To be able to say that your factory complies with the standards set by these companies, goes a long way in convincing your customers and your bank that you will be able to fulfill your contracts as to delivery dates.

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Cotton

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Cotton

Monroe, N. C.

LINEBERGER BROS.

BROKERS—SHIPPERS

Carolina and Delta Staples
All Kinds Short Cotton

Lincolnton, N. C.

Recent Accomplishments in Research

(Continued from Page 12)

consumer, work back through the design, and finally arrive at manufacturing. The manufacturing becomes a means to the end of service.

"It is important to bear this order in mind. As yet, the order is not thoroughly understood. The price relation is not understood. The notion persists that prices ought to be kept up. On the contrary, good business—large consumption—depends on their going down."

A few instances of the savings are reviewed and quoted herewith:

"The sweepings net six hundred thousand dollars a year. Experiments are constantly going on in the utilization of scrap. In one of the stamping operations six-inch circles of sheet metal are cut out. These formerly went into scrap. The waste worried the men. They worked to find uses for the discs. They found that the plates were just the right size and shape to stamp into radiator caps, but the metal was not thick enough. They tried a double thickness of plates, with the result that they made a cap which tests proved to be stronger than one made out of a single sheet of metal. We get 150,000 of those discs a day. We have now found a use for about 20,000 a day and expect to find further uses for the remainder. We saved about ten dollars each by making transmissions instead of buying them. We experimented with bolts and produced a special bolt made on what is called an 'upsetting machine' with a rolled thread that was stronger than any bolt we could buy, although in its making was used only about one-third of the material that the outside manufacturers used. The saving on one style of belt alone amounted to half a million dollars a year. We used to assemble our cars at Detroit, and although by special packing we managed to get five or six into a freight car, we needed many hundreds of freight cars a day. Trains were moving in and out all the time. Once a thousand freight cars were packed in a single day. A certain amount of congestion was inevitable. It is very expensive to knock down machines and crate them so that they cannot be injured in transit—to say nothing of the transportation charges. Now we assemble only three or four hundred cars a day at Detroit—just enough for local needs. We now ship the parts to our assembling stations all over the United States, and in fact pretty much all over the world, and the machines are put together there. Wherever it is possible for a branch to make a part more cheaply than we can make it in Detroit and ship it to them, then the branch makes the part.

"The plant at Manchester, England, is making nearly an entire car. The tractor plant at Cork, Ireland, is making almost a complete tractor. This is an enormous saving of expense and is only an indication of what may be done throughout industry generally, when each part of

a composite article is made at the exact point where it may be made most economically. We are constantly experimenting with every material that enters into the car. We cut most of our own lumber from our own forests. We are experimenting in the manufacture of artificial leather because we use about forty thousand yards of artificial leather a day. A penny here and a penny there runs into large amounts in the course of a year.

"The greatest development of all, however, is the River Rouge plant, which, when it is running to its full capacity, will cut deeply and in many directions into the price of everything we make. The whole tractor plant is now there. This plant is located on the river on the outskirts of Detroit, and the property covers six hundred and sixty-five acres—enough for future development. It has a large slip and a turning basin capable of accommodating any lake steamship; a short-cut canal and some dredging will give a direct lake connection by way of the Detroit River. We use a great deal of coal. This coal comes directly from our mines over the Detroit, Toledo and Ironton Railway, which we control, to the Highland Park plant and the River Rouge plant. Part of it goes for steam purposes. Another part goes to the by-product coke ovens which we have established at the River Rouge plant. Coke moves on from the ovens by mechanical transmission to the blast furnaces. The low volatile gasses from the blast furnaces are piped to the power plant boilers where they are joined by the sawdust and the shavings from the body plant—the making of all our bodies has been shifted to this plant—and in addition the coke 'breeze' (the dust in the making of coke) is now also being utilized for stoking. The steam power plant is thus fired almost exclusively from what would otherwise be waste products. Immense steam turbines directly coupled with dynamos transform this power into electricity, and all of the machinery in the tractor and the body plants is run by individual motors from this electricity. In the course of time it is expected that there will be sufficient electricity to run practically the whole Highland Park plant, and we shall then have cut out our coal bill.

"Among the by-products of the coke ovens is a gas. It is piped both to the Rouge and Highland Park plants where it is used for heat-treat purposes, for the enameling ovens, for the car ovens, and the like. We formerly had to buy this gas. The ammonium sulphate is used for fertilizer. The benzol is a motor fuel. The small size of coke, not suitable for the blast furnaces, are sold to the employees—delivered free into their homes at much less than the ordinary price. The large sized coke goes to the blast furnaces. There is no manual handling. We run the melted iron directly from the blast furnaces into great ladles. These ladles travel into the shops and the iron is poured directly into the moulds without another heating. We thus not only get a uniform quality of iron according to our own specifications and directly under our

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control, but we save a melting of pig iron and, in fact, cut out a whole process in manufacturing as well as making available all our own scrap.

"What all this will amount to in point of savings we do not know—that is, we do not know how great will be the saving, because the plant has not been running long enough to give more than an indication of what is ahead, and we save in so many directions—in transportation, in the generation of our power, in the generation of gas, in the expense in casting, and then over and above that is the revenue from the by-products and from the smaller sizes of coke. The investment to accomplish these objects to date amounts to something over forty million dollars.

"How far we shall thus reach back to sources depends entirely on circumstances. Nobody anywhere can really do more than guess about the future costs of production. It is wiser to recognize that the future holds more than the past—that every day holds within it an improvement on the methods of the day before."

The purpose in citing these accomplishments of Mr. Ford's is to show that they have come about through the application of research to every conceivable process and operation, however apparently insignificant. The desire to inquire into and study these various processes or what might be called the research spirit has thus been amply rewarded, not so much in terms of Mr. Ford's success as in terms of the benefits accruing to the life of the people as a whole. It is the spirit of research that counts after all. Given the desire to investigate intelligently, the rest will take care of itself.

During the last ten years or so the textile industry has become fully awakened to the needs and opportunities for research in its midst, and the proof of this, if any proof is needed, is being manifested on all sides. It is to be found in the establishment of mill laboratories; in the articles in trade papers; in the subjects of discussion in trade association meetings and in the attitude of mind of the men in the industry, from the executives down to the operatives themselves. In this day one does not need fear for the future. We are out of the gloom of complacency and into the light of progress which is based on sound development arising out of intelligent study of our methods, processes and ways of working. The future is encouraging and there is little doubt that notable improvements and economies in methods of manufacture will follow as a natural result of the research spirit.

A word in regard to scientific management as applied to textile mills seems appropriate before bringing this paper to a close, since this type of management is naturally prompted by and is an offspring of the spirit of research. The subject is a large one, properly demanding special treatment by better equipped expounders. However, it is pertinent to mention that scientific management is properly finding its way into our mills, which seems

to be a most natural development in the light of its conspicuous success in other industries.

The recent meetings of the Taylor Society in Boston last April gave ample evidence of this trend, and the papers brought forth many helpful and valuable facts regarding the principles of scientific management as applied generally as well as to textile manufacturing. If there was a keynote struck in the meetings it was in effect that the changes and improvements which are a part of scientific management must be brought about as a result of close and sympathetic study on the part of management and labor, with due regard to the proper interests and aspirations of all groups in the industrial scheme—investors, management and labor.

Winner of Saco-Lowell Prize

The judges appointed to award the prize offered by the Saco-Lowell Shops for the thesis of greatest value to the textile industry performed at the Lowell Textile School during the school year 1923-1924 report as follows:

The prize of \$100 to be awarded to Philip R. Lowe for his thesis entitled, "The Effect of Regain Upon the Strength and Elasticity of a Worsted Fabric."

Honorable mention is awarded to G. Kenneth Lewis for his thesis entitled, "A Comparative Study of the Effect of Different Drawing Processes Upon the Strength, Elasticity and Evenness of a Cotton Yarn."

The judges were: E. D. Walen, representing the Lowell Textile School; Russell T. Fisher, representing the National Association of Cotton Manufacturers; R. E. Haumburg, representing the Saco-Lowell Shops.

This year, for the second time, the Saco-Lowell Shops offered a prize of \$100 for the thesis of the greatest value to the textile industry prepared by a student of the Lowell Textile School. The basis for judging the merits of the theses were originality, thoroughness, breadth of vision, practical utility.

Japan Operates Fewer Spindles.

There were 3,887,846 spindles operating in Japan in January, 1924, compared with 4,156,019 in February, 1923, according to the report of the Japanese Cotton Spinners' Association. According to the same source, there were employed in the cotton spinning mills 35,356 male operatives and 112,918 female operatives. The average wages per day amount to 1.518 yen for male operatives and 1.2 for female operatives. (Yen equals approximately \$0.41). The average count of yarn spun in the mills of the association is No. 22's.

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Estimate Crop of 12,144 Bales

Washington, D. C.—The 1924 cotton crop will yield about 12,144 bales of 500 pounds gross. This estimate was made by the United States Department of Agriculture, which reported that the area of cotton in cultivation this year in the United States is about 40,403,000 acres, as compared with 38,701,000 acres, the revised estimate of acreage in cultivation a year ago being an increase of 1,702,000 acres, or 4.4 per cent.

The announcement was made by the Crop Reporting Board of the Department of Agriculture on estimates from the reports and data furnished by crop correspondents, field statisticians and co-operating State boards or departments of agriculture and extension departments. It further announced that the condition of the growing crop on June 25 was 71.2 per cent of normal.

"Marked improvement of the cotton crop is noted," the department declared in a statement based on June 25 condition, "improvement during the last week of the period being especially marked. The condition of the crop is found to be 71.2 per cent of normal, or 5.7 per cent above the condition of 65.5 per cent on May 25. The ten-year average June improvement has been 2 per cent. Consequently the improvement during June of this year was nearly three times as much as average. Compared with June 25 of last year also, the condition of the crop on the same date this year is higher by 1.3 per cent. Notwithstanding the June improvement the 71.2 per cent condition of June 25 is 3.6 per cent below the ten-year average of 74.8 per cent on June 25.

"The outlook for the cotton crop is more hopeful than it was at this time last year. If there is dry, hot weather in the Eastern and Gulf States during the next few weeks it will probably mean a material improvement in the prospects of the crop. On the other hand, if weather conditions are favorable for the development of the weevil, very serious damage may occur, as the weevil will probably become prevalent before the crop has advanced sufficiently to be safe from danger."

A report of the last available information as to foreign production compiled by the Bureau of Agricultural Economics indicates that cotton crop news continues good for both Upper and Lower Egypt.

The condition of cotton on June 25, officially estimated at 71.2, compared with 69.9 for the corresponding date of 1922, with 71.2 for June, 1922, and with a ten-year average, compiled by the Department of Agriculture, of 74.8. It is to be noted, however, that June, 1924, condition has not been exceeded for the

month since 1918, when it stood at 85.8. The estimate is nearly three points higher than the combined average of leading unofficial forecasts of the past few days, but accords with official weekly crop weather reports from the cotton belt, which have consistently shown absence of serious weevil damage and more effective work in its prevention.

Condition for a series of month follow, as of the 25th of each month:

	May	June	July	Aug.	Sept.
1924	65.6	71.2			
1923	71.0	69.9	67.2	54.1	49.5
1922	69.6	71.2	70.78	57.0	50.0
1921	66.0	69.2	64.7	49.3	42.2
1920	62.4	70.7	74.1	67.6	59.1
1919	75.6	70.0	67.1	61.4	54.4
1918	82.3	85.8	73.6	55.7	54.4
1917	69.5	70.3	70.3	67.3	60.4
1916	77.5	81.1	72.3	61.2	56.3
1915	80.0	80.2	75.4	60.2	60.8
1914	74.3	79.6	76.4	78.0	75.6

As also indicated in weekly crop reports, there was a general improvement over May, 1924, condition, which for the whole country was fixed at 65.6. The Government's figures by States show that Alabama was the only leading producer which failed to share the recovery. It held that position throughout June. The largest improvement was recorded in the gain of 14 points by Oklahoma. But the recovery of 13 points in condition by Tennessee, of 10 by Arkansas and 8 by Louisiana also contributes materially to a somewhat striking change in the general result. Condition on the 25th of each month in leading producing States follows:

Cotton Condition—States.

	June, 1924.	May, 1924.	June, 1923.
North Carolina	73	71	80
South Carolina	69	68	64
Georgia	75	68	56
Alabama	70	70	68
Mississippi	74	69	67
Louisiana	78	70	69
Texas	70	66	77
Arkansas	68	58	66
Tennessee	67	54	67
Oklahoma	72	58	64

Estimate of Acreage.

Acreage estimated (the first official for 1924) is 40,403,000 acres, compared with 38,709,000 planted in 1923 and 37,130,000 harvested in that year. The increase is 1,694,000 acres or 4.3 per cent. At the Government's calculation of average yield of 143.3 pounds to the acre, the American contribution to the general increase in world production of raw cotton will not be disproportionate. Much of the acreage increase was in the upper part of the cotton belt.

At the estimated rate of acre yield, 143.8 pounds, the Government placed total production at 12,144,000 bales, as against only 10,128,478 in 1923. The 1922 crop was 9,729,306 bales and for 1921 the yield when finally revised down and up stood at 7,977,778 bales. The outlook according to the Government report is for the nearest approach to formal production since the moderate outturn of 13,270,970 bales in 1920.

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Wilson Predicts Higher Prices

Rossville, Ga.—J. H. Wilson, treasurer of the Richmond Hosiery Mills, of this city, is sending to accounts of the mills an analysis of present conditions, and he advises retailers to cover on merchandise before a general buying wave starts and forces prices to higher levels. In his letter, Mr. Wilson states:

"In looking over the financial page of the morning paper I was impressed with the fact that call money in New York was going begging at 1½ per cent to 2 per cent. In the adjoining column was the bond market list showing that practically all bonds, particularly Government issues, were really very strong and have been steadily advancing for some weeks. In another portion of the paper I stumbled across the combined statement of the Federal Reserve Bank showing total gold reserves over \$3,117,000,000 against a currency circulation of \$1,000,000,000, or practically \$1.55 in gold for every paper dollar which they have in circulation (the Federal Reserve law only requires 40 per cent in gold to each paper dollar circulated). In other words, the present gold reserve would justify a paper circulation of \$7,792,500,000, more than four times the amount actually in circulation today.

"Analyzing this statement further, I note that while this remarkable institution has some \$4,700,000,000 in assets, their total earning assets are only \$850,000,000, a large portion of which consists of Government securities.

"In another portion of the same page, notice comes from the Philadelphia Federal Reserve Bank of the rediscount rate being reduced from 4½ per cent to 3½ per cent.

"All of this indicates both cheap money and a plethora of money that is without precedent either in this country or in any country throughout the civilized world.

"What does this portend? I got to pondering over what this means to me and wonder if you likewise have given it any thought?

"It is the history of all periods of depression that conditions go through a regular cycle. The first phase is the disposition of everybody to gather in their money, reduce their stocks and wait. Next after this money has accumulated, laid idle for a time, they look for some investment where safety is the first consideration regardless of returns. This phase is always reflected in the strength of well secured bonds. Then, after a time, the holder, becoming more reassured of conditions, begins to look around for other investments where the returns will be larger and more risk as to safety. At this juncture a heavy buying movement usually begins and continues until such time as the surplus money volume is absorbed in business and is always attended with rising prices.

"At the present moment the bank

vaults are bulging with money and investors are clamoring for bonds that will bring them some returns for their idle funds. It is my firm opinion that we are now on the threshold of a buying movement that has never been equalled in this country, regardless of whether Democrats or Republicans get control of the Government at the next election.

"It has been my observation for a long time that only about 2 per cent of people engaged in business really make any money, and further, that this 2 per cent are those people who have the nerve and the foresight to make their purchases when prices are down and everybody else is afraid to buy. The other 98 per cent of us sit back in our slough of despondency, wait to see what our neighbor is going to do and afraid to buy until we see prices advancing, resulting usually in our buying nearer the top of the market than the bottom and the consequence is a loss of profit if not actual loss of capital when prices recede.

"Let us for a moment analyze the situation in textiles. For the past three months mills have been closing down because the prices obtainable for merchandise would not allow enough to pay for actual raw materials and direct labor. When this condition prevails we are somewhere near the bottom of the market. Spot cotton today is approximately 30 cents a pound. Yet all cotton products (and hosiery in particular) are cheaper today than in the summer of 1921 when cotton was around 11 cents a pound. Silk is cheaper than at any time since 1915 and any hosiery manufacturer will tell you (and we are not all liars) that prices at which he is selling are lower than actual cost of production. This must be approximately true in view of the fact that many are closing down their mills rather than attempt to run under these conditions.

"What are we going to do? For my part, I am going to cover on raw materials at the present levels with the confident belief that the trade is going to need the merchandise at the present prices and at higher levels within a short time and I truly hope that our customers will cover their needs at the present low prices before the average dealer begins to try to cover his needs, fill his stocks, and thereby causing heavily advancing prices. It will be well worth your time to analyze and compare the situation today with like periods of the past.

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Cotton Goods

New York.—The cotton goods markets were quiet during the week, the holiday meaning that there was practically a four-day market. Gray goods prices were steady as the week ended, although buyers had a tendency to bid lower on account of the drop in cotton following the government report. Staple cloths were quiet as the week ended, and were less active than some of the specialty lines. There has been no real improvement in the demand for staple domestic lines, gingham, percales and colored cottons. Despite the lower cotton prices, mills and selling agents were not inclined to lower goods prices.

On Saturday there was some business on light weight bag numbers at prices that were an eighth cent lower than current quotations, but this trading was confined to small lots.

In the sheetings market there were reports of 10½ cents for 37-inch 48x48, 4.00 yard, in second hands; 13½ cents for 36-inch 64x64, 3.50 yard goods in first hands; 13½ cents for 36-inch 48x48, 3-yard goods in second hands. Pajama checks were an eighth cent lower. On Saturdays there were reports of sales of 11½ cents in second hands for 37½-inch, 64x88, 4.70 yard goods.

Some of the best known mills making duck have been holding for higher prices for some time, reports being current to show that mills have declined business on wide ducks at prices they would have accepted some time ago. Wide at 45 per cent off the lost has been declined. In some cases, buyers have been able to pick up small lots at lower figures.

There was some further business in shadow striped warp sateens with domestic mills, reports showing as many as 15,000 to have been sold.

There was little business in tire fabrics, quotations being held at previous levels, namely, a low point of 50 cents for carded peeler square woven 14 and 17½-ounce goods and 52 cents for cords. The only buying reported was by small mills wanting limited quantities.

Converters of wash fabrics have been making progress in liquidating stocks of many of their slow selling goods, and the demand of late has permitted them to trade at some price. Their best business is being

done on a few numbers, such as flock dot voiles, colored suitings and plain or printed voiles. They have been ordering some lots of new gray cloths of special character and have been showing a few buyers some new fabrics. As a rule they feel that better business is not far off, although they are now disposed not to attempt formal openings until August.

Frank J. Laffan, export cotton goods broker, says of the markets: "The cotton goods market was extremely dull during the past month. Drastic mill curtailment continues, but buyers remain indifferent. There is little prospect of any change from this procedure until something more definite can be learned as to the size of the cotton crop. It is well understood by the trade that a large yield will be forthcoming should the weather be suitable during July and August, especially so as the acreage planted is the largest on record. On the other hand, unseasonable weather will make for a small yield. It is this uncertainty that is restraining buyers from placing commitments in a large way."

Cotton goods prices were quoted as follows:

Print cloths, 28-in., 64x64s	7½
Print cloths, 28-in., 64x60s	7
Print cloths, 27-in., 64x60s	6½
Gray goods, 38½-in., 64x64s	9½
Gray goods, 39-in., 68x72s	10
Gray goods, 39-in., 80x80s	13
Brown sheetings, 3-yard	14½
Brown sheetings, 4-yard	11½
Brown sheetings, stand.	15½
Ticking, 8-ounce	26
Denims	24½
Staple gingham	15
Kid finished cambrics	9 a10
Dress gingham	18½ a21
Standard prints	9½

British Yarn Trade Dull.

Although prices of cotton yarns have advanced about one penny in the past two weeks, this has imparted no stimulus to the trade and spinners of American yarn claim to have a smaller manufacturing margin than has been the case in the recent past. The volume of business in Egyptian yarn is declining, but spinners are well supplied with orders so that the present slackening is being met without difficulty. —Trade Commissioner H. D. Butler, London, May 19.

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The Yarn Market

Philadelphia, Pa.—Business continued very dull in the yarn market last week and prices showed a decline following the issuance of the Government cotton crop report. Inquiries were less numerous than during the preceding week and buyers apparently decided to await further developments.

The prices of practically all carded yarns showed a drop of at least half a cent a pound on Saturday and in some cases the decline was a full cent. Combed yarns were weak but prices held better than for carded yarns. There were a few scattered inquiries for insulating yarns and some of the other coarse carded numbers, but practically no business was done. Aside from the effect of the cotton report, the break caused by the holiday slowed down business to a further extent.

Hosiery mills showed a tendency to buy steadily on a hand-to-mouth basis during the first half of the week and a continuance of this business is expected this week. Underwear manufacturers are more confident and have been showing more interest in their yarn requirements. Prices on combed yarns are spotty and irregular, with the coarse numbers somewhat better than the finer counts. Efforts of some dealers to move their stock yarns has accounted for much of this irregularity in the past ten days. Mercerized yarns showed no change and quotations generally are below what mercerizers will accept.

Spinners see no immediate relief from the unfavorable conditions that have existed for some time. With yarn costs considerably below the cost of production and only a very limited demand at any price, mills have no other alternative than to curtail. The amount of curtailment showed very little change during the past week.

Yarn quotations in this market were quoted as follows:

Two-Ply Chain Warps.			
2-ply 8s	41½a42	2-ply 24s	46½a47
10s	42½a	2-ply 26s	48 a
12s to 14s	43 a44	2-ply 30s	49 a
2-ply 16s	44 a	2-ply 40s	57 a58
2-ply 20s	44½a	2-ply 50s	66 a67
Two-Ply Skeins.			
8s	40 a41	40s ex	50 a60
10s to 12	41½a42½	50s	66 a67
14s	43 a	60s	73 a
16s	43½a		
20s	44 a		
24s	46½a		
26s	47 a		
30s	48½a49		
36s	54 a		
Part Waste Insulating Yarn.			
6s, 1-ply	34 a	12s, 2-ply	37½a38
8s, 2, 3 and	42 a	20s, 2-ply	42 a
4-ply	34 a	26s, 2-ply	46½a
10s, 1-ply and	30s, 2-ply	48 a	
2-ply	36½a		
Duck Yarns.			
3, 4 and 5-ply		3, 4 and 5-ply	
8s	40 a	16s	43 a
10s	41 a	20s	44 a
12s	42 a		

Single Chain Warps.

10s	42½a	24s	47 a
12s	43 a	26s	48 a
14s	43½a	30s	49 a50
16s	44 a	40s	57 a58
20s	44½a		

Single Skeins.

6s to 8s	40 a	20s	44 a
10s	41 a	24s	47 a
12s	42 a	26s	48 a
14s	43 a	30s	49 a
16s	43½a		

Frame Cones.

8s	40½a	22s	44 a
10s	41 a	24s	44½a
12s	41½a	26s	45 a
14s	42 a	28s	46 a
16s	42½a	30s	46 a49
18s	43 a	30s tying in	47 a
20s	43 a44	40s	58 a

Combed Peeler Skeins, Etc.

2-ply 16s	53 a55	2-ply 50s	69 a72
2-ply 20s	55 a57	2-ply 60s	75 a80
2-ply 30s	58 a60	2-ply 70s	85 a90
2-ply 36s	59 a60	2-ply 80s	95 a100
2-ply 40s	60 a65		

Combed Peeler Cones.

10s	50 a51	30s	63 a65
12s	51 a52	32s	63 a65
14s	52 a53	34s	65 a67
16s	53 a54	36s	68 a69
18s	54 a55	38s	69 a70

Austrian Market Slightly Better.

There was a slight improvement in the Austrian cotton spinning industry during March as compared with February. The production of yarn amounted to 4,330,355 pounds in March as against 4,088,960 pounds in February. It is estimated that if the spindles in Austria operate at full time, production will exceed 5,800,000 pounds. The Austrian Association of Cotton Spinners reports that there are 1,096,744 spindles in Austria, of which 83 per cent were active during March. — Assistant Trade Commissioner E. Zwickel, Vienna, May 9.

Chinese Yarn Market Steady.

The yarn market has been steady during the past month with few price changes and only a fair amount of business. No. 10's are quoted at taels 162 to 168 (tael equals \$10.72) per 400-pound bale, while No. 20's are quoted at taels 183 to 200 per bale. — Trade Commissioner G. C. Howard, Shanghai, May 14.

Belgian Yarn Goods Dull.

Business in cotton yarn is dull, owing to the uncertainty in the foreign exchange market, with the result that orders are stimulated only by price concessions. There is less talk of short time than was the case a fortnight ago. Most plants are still operating on full time, but only on contracts accumulated before the rise in the franc. — Acting Commercial Attache S. H. Cross, Brussels, May 10.

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1	2 7/16 "	6 " 11 "
1	2 15/16 "	10 " 6 "
1	2 7/16 "	10 " 0 "
1	2 7/16 "	10 " 6 "
1	2 7/16 "	6 " 2 "
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1	3 3/16 "	5 " 9 "
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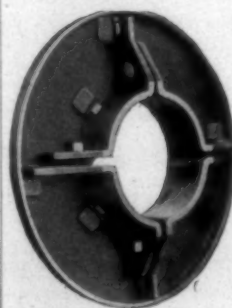
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Southern Power Co. To Rebuild Catawba Plant

Another step in the waterpower development program of the Southern Power Company was assured Saturday when announcement was made at the offices of this company of plans for the immediate reconstruction of the old Catawba hydro-electric plant located 20 miles south of Charlotte. The new plant will have a generating capacity of 80,000 horsepower, being of the same size as the Mountain Island plant, 12 miles from Charlotte, which was completed seven months ago, and almost twice the size of the new Rhodhiss plant, development of which was started a few months ago.

The first step in the actual construction of the new Catawba plant was the letting of a contract Saturday afternoon for the building of a railway track from a point near Fort Mill, S. C., to the site of the plant, a distance of five miles. This contract was let to the McDowell Contracting Company, of Marion. Work on this railway is to begin immediately, and will be pushed vigorously until the road is ready for traffic.

The Catawba plant at present has a head of 25 feet and a generating capacity of 10,000 horsepower. The old dam and plant will form a part of the new dam which will give an effective head of 65 feet. The new power plant will have four generating units of 20,000 horsepower each, and will have a total generating capacity, therefore, eight times the capacity of the present Catawba plant.

An interesting feature of the new project is that the old Catawba plant will be kept in operation practically until the new plant is completed and put into commission. At that time, of course, the old power equipment, now obsolete, will be junked.

The new Catawba plant will be built by the Wateree Power Company with its own organization. Contracts for the purchase of the machinery will be let very shortly. Meanwhile, however, active preliminary work on the site, as well as the building of the railway, will be gotten under way. This incidental work will include the clearing and cleaning up of the very considerable area of land which will form the larger reservoir of the new plant.

The announcement of the immediate beginning of work upon a new power plant will be taken by the public generally not only as an evidence of the faith of the Southern Power Company in the Piedmont section of the Carolinas and its industrial possibilities, but also as an evidence of the confidence of James B. Duke and his associates in the basic soundness of business conditions. It had been generally understood since the slight increase in basic rates was granted the Southern Power Company some months ago that the company was planning to proceed with a construction program of considerable magnitude, thus keeping faith with its tacit as-

surance when the rate increase was given that it would attempt as rapidly as possible to develop power for the rapidly increasing demands of industrial North and South Carolina.

The letting of contracts for the 45,000 horsepower hydro-electric plant at Rhodhiss and the 40,000 horsepower steam plant at Duncan, S. C., immediately after the rate decision was handed down was the first evidence of the carrying out of the power company's construction program. The beginning of work on this plant within a few months of the contract for the two already mentioned is simply a further unfolding of the plans of the company to supply power as rapidly as it may be needed, or as rapidly as it can be developed, to insure the continued expansion of industrial Carolinas.

Chinese Gray Sheetings Control Philippine Trade

Washington, July 2.—"Philippine retail trade in cotton piece goods was very dull during May," according to a cable from Assistant Trade Commissioner Charles P. Goodhue, Manila, June 23, to the Department of Commerce.

"Local prices are declining, and indenting in most lines has decreased. Chinese weaves of grey sheeting are still in control of the market, but there have been some sales of American grey sheetings which are priced at approximately 12 pesos (\$6.00) per 40-yard piece of 36-inch, 48 by 48, 3-yard goods from importers' stock. Stocks of bleached sheetings are light with a fair demand, and there has been some indenting. Bleached goods, 36 inches wide, 68 by 72, 4 1/4 yards to the pound, are quoted at 11.50 pesos (\$5.75) for 36-yard lengths. In gray drills, both the stock and demand are fair with Japanese weaves still dominating the market. Bleached drill stocks are light, and the demand seasonably dull. Stocks of colored drills are sufficient to meet the improving demand for this line. Stocks of khaki are adequate for the fair demand in American brands, while those of English goods are heavy with a light demand. There is little inquiry for denims, in which stocks are light. Chambray stocks are light, and an increasing interest is apparent in this line. Stocks of organdies and voiles are large, and the demand poor. Stocks of prints with light grounds are small, and of those with colored grounds heavy. The demand for the former is fair and for the latter slight. Two-color, 23-inch, 56 by 44 prints with light grounds are priced at approximately 16 centavos (\$0.08) per yard, while three-color, 36-inch 64 by 60 prints are quoted at 27.50 centavos (\$0.1375) per yard."

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8:15 A. M.	Ar.	Jacksonville	Lv.	8:15 P. M.

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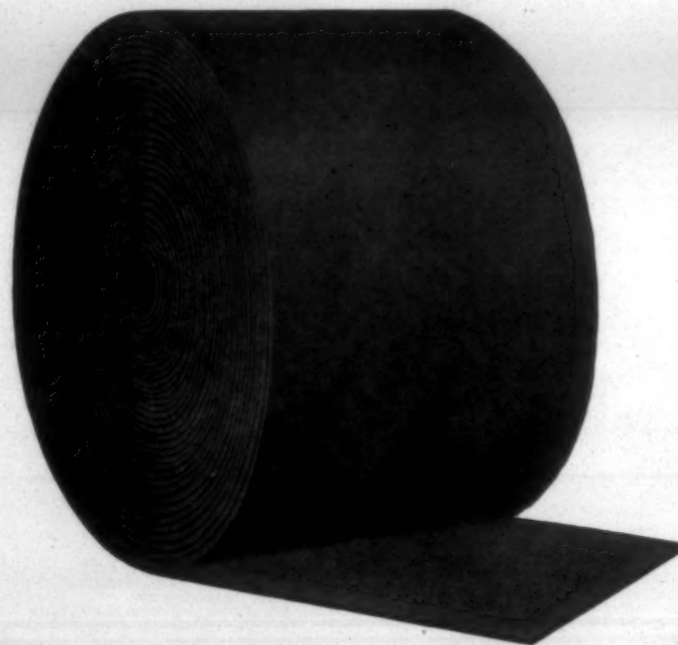
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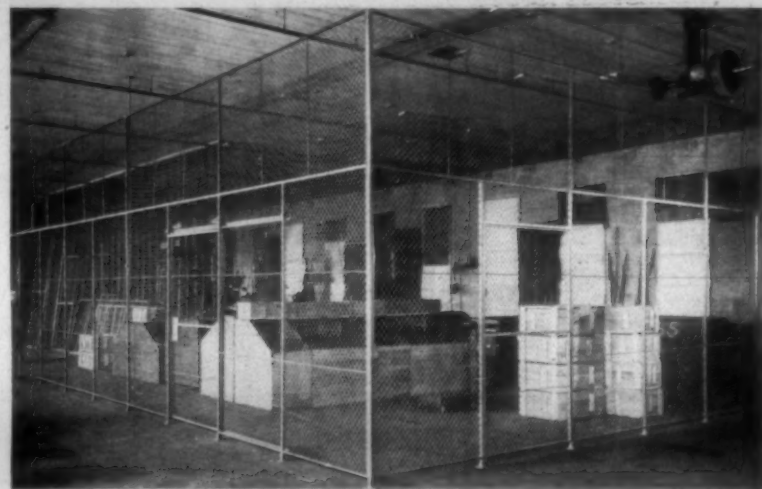
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